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**JOINT ADVANCED WARFIGHTING SCHOOL**

# EMPOWERING GLOBALLY INTEGRATED OPERATIONS AND MISSION COMMAND: REVISITING KEY WEST

**by**

**Timothy J. Rapp**

***Colonel, USAF***

**EMPOWERING GLOBALLY INTEGRATED OPERATIONS AND MISSION COMMAND: REVISITING KEY WEST**

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A paper submitted to the Faculty of the Joint Advanced Warfighting School in partial satisfaction of the requirements of a Master of Science Degree in Joint Campaign Planning and Strategy. The contents of this paper reflect my own personal views and are not necessarily endorsed by the Joint Forces Staff College or the Department of Defense.

This paper is entirely my own work except as documented in footnotes.

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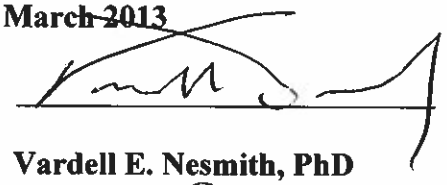
**1 March 2013**

**Thesis Adviser:** Signature: 

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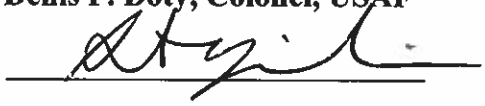
Signature: 

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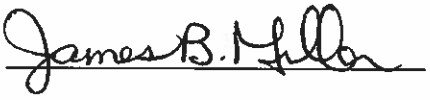
Signature: 

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## ABSTRACT

Common aspects of personnel policy, combat service support (CSS), and aviation must be unified across the military Services. Unification of these functions will improve military efficiency and effectiveness and enable the Chairman of the Joint Chiefs of Staff's concepts of globally integrated operations and mission command. Globally integrated operations require military forces that are much more homogeneous and able to combine at much lower echelons than is possible today. The organization of the Armed Forces has not undergone significant, fundamental change since its formal implementation in 1947, in spite of the fact that the specific organizational model chosen was highly contentious in its time and the external environment and character of warfare have seen dramatic changes in the nearly 70 years since 1947. The growth of staffs over the years, the reduction of tooth-to-tail ratios, the failure of joint basing to incur cost savings, and the existence of wasteful competitive redundancy of four Services conducting the same personnel, CSS, and baseline aviation functions with duplicative policies, systems, and staffs all point to opportunities for vast improvement in efficiency. An analysis of history shows that three driving factors emerged between 1900 and 1947 that influenced, and continue to influence, unification among the Services: the acquisition of overseas interests, the massive growth in the size of the peacetime military force, and the advance of military operations into the air and other connective domains. History also shows that calls for military reform to reduce redundancy and improve effectiveness have occurred frequently. In spite of repeated studies, commissions, and other Congressionally-directed reform activities, relatively significant change has only occurred three times since 1947, and those changes did not affect the basic arrangement of functions within the military. When considering reform, military Services should be organized to focus on their "Hedgehog" activities, or central roles, to the maximum extent possible. Five specific proposals for unification are provided. First, abolish the military departments and make the Service Secretaries Undersecretaries of Defense for Air, Land, and Maritime Operations. Second, consolidate Service personnel organizations, policies, and systems and put them under a defense agency or unified command. Third, consolidate recruiting and accession activities. Fourth, assign policy direction for each of the CSS functions and Executive agency to one of the Services. Fifth, consolidate certain common aspects of aviation, including training and evaluation policy, flight records, maintenance records, etc. Enacting these recommendations will require significant support from senior military and civilian leaders, changes to legislation, and a significant detailed planning effort. Benefits of accomplishing the recommendations include and immediate reduction in the size and complexity of the military and greatly increased interoperability.

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# CHAPTER 1: INTRODUCTION

## Problem Statement

> *In this concept [Globally Integrated Operations], Joint Force elements, globally postured, combine quickly with each other and mission partners to integrate capabilities fluidly across domains, echelons, geographic boundaries, and organizational affiliations.*[1]

So wrote General Martin Dempsey, the Chairman of the Joint Chiefs of Staff (CJCS), describing his vision for the Joint Force of 2020 in his foreword to the 2012 Capstone Concept for Joint Operations (CCJO). General Dempsey also outlined the security paradox and fiscal limitations that shaped the development of this concept. The security paradox is that "while the world is trending toward greater stability overall, destructive technologies are available to a wider and more disparate range of adversaries."[2] Thus, the world is becoming more dangerous rather than less. At the same time, the United States faces an ongoing, complex fiscal crisis that is driving Defense spending cuts which have already been significant and seem likely to expand.

According to the CCJO, globally integrated operations are dependent on the concept of "mission command," among other key elements.[3] Mission command is described in Joint doctrine as "the conduct of military operations through decentralized execution based upon mission-type orders. Successful mission command demands that subordinate leaders at all echelons exercise disciplined initiative and act aggressively and independently to accomplish the mission."[4] General Dempsey published a white paper

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[1] U.S. Joint Chiefs of Staff, *Capstone Concept for Joint Operations: Joint Force 2020* (Washington, DC: Joint Chiefs of Staff, September 10, 2012), iii.

[2] Ibid.

[3] Ibid., 4.

[4] U.S. Joint Chiefs of Staff, *Joint Operations*, Joint Publication 3-0 (Washington, DC: Joint Chiefs of Staff, Aug 11, 2011), II-2.

on mission command in April 2012 that further defines the concept. He acknowledges that the basic idea of mission command is not new to the Armed Forces. However, his vision for Joint Force 2020 calls for a much deeper and broader level of mission command than currently exists:

> Our fight against a decentralized enemy has driven home the necessity to decentralize our capabilities and distribute our operations… Synchronization of time and tempo with expanded maneuver space (space and cyberspace) brings added complexity to synergizing and integrating actions and effects in both space and time. The reliance and synergy of disparate elements to achieve operational objectives is the genesis for a deeply interdependent Joint Force 2020; **this drives the need to create jointness deeper and sooner in the force**. Smaller, lighter forces operating in an environment of increased uncertainty, complexity and competitiveness will require freedom of action to develop the situation and rapidly exploit opportunities. **Decentralization will occur beyond current comfort levels and habits of practice**.[5] (emphasis added)

The concepts of mission command and globally integrated operations were, in part, a response to strategic direction from the President and the Secretary of Defense. In January 2012, the Secretary of Defense released a document now commonly known as the Defense Strategic Guidance (DSG), which contained a foreword from the President.[6] The DSG is a unique document, and its release constituted an out-of-cycle update to high-level Defense strategy, which is normally updated every four years and was previously released in the 2010 Quadrennial Defense Review (QDR). In broad terms, the DSG served to give Department of Defense (DoD) prioritization for competing missions. It acknowledged U.S. economic power as a national security interest that is currently

[5] Chairman of the Joint Chiefs of Staff, *Mission Command White Paper* (Washington, DC: Joint Chiefs of Staff, April 3, 2012), 3 – 4.

[6] U.S. Department of Defense, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense* (Washington, DC: Department of Defense, January, 2012). (Commonly referred to as "Defense Strategic Guidance.")

threatened by overwhelming and increasing debt. Thus, an important principle in the DSG is that:

> The Department must continue to reduce the "cost of doing business." This entails reducing the rate of growth of manpower costs, finding further efficiencies in overhead and headquarters, business practices, and other support activities before taking further risk in meeting the demands of the strategy.[7]

Based on this guidance by the President and Secretary of Defense, Joint Force 2020 must use fewer resources to secure the United States in a more dangerous world.

Moreover, due to the length of time required to implement major acquisition programs, build infrastructure, write new doctrine, and develop and execute training programs, there is only a limited opportunity to affect the joint force by 2020. As General Dempsey stated:

> The reality of force development is that about 80% of Joint Force 2020 is programmed or exists today. We do, however, have an opportunity to be innovative in two ways. We can significantly change the other 20% of the force, and we can change the way we use the entire force. While new capabilities will be essential, many of our most important advancements will come through innovations in training, education, personnel management, and leadership development.[8]

In the parlance of strategy, which is composed of ends, ways, means, and risk, the concept of globally integrated operations is a vision for improving the ways the Joint Force operates in order to achieve the same national military ends with reduced means. The residual risk is yet to be determined, and depends on the final balance between ways and means. The CCJO identifies some of the potential risks, and these will be addressed in Chapter 2 and Chapter 4.

[7] Ibid., 7.
[8] Joint Chiefs of Staff, *CCJO*, iii.

One way, arguably the only way, to achieve globally integrated operations and mission command as the CJCS has described them is to completely reorganize the DoD from a blank slate perspective. This could result in a much more homogeneous, flexible, and interoperable force than currently exists. It could also eliminate many inherent redundancies, resulting in a smaller and less expensive military while preserving combat power. However, there are many barriers to such an activity. While the CJCS is responsible for developing joint doctrine, he does not have direct authority over the development or employment of forces. Therefore, documents like the CCJO and the Mission Command White Paper can only inform and influence the development of capabilities by the Services and the employment of them by the combatant commands. The Secretary of Defense and the President can and do control and direct the activities of the Services and combatant commands. However, they are tightly constrained by law, and thus by Congress, in how far they can rearrange the basic functions and organization of the DoD and its components.

The foundations of the current U.S. defense organization were formally established after WWII in the National Security Act (NSA) of 1947. Even before the war ended, a national debate had begun about the exact form of the new organization. Presidents, members of Congress, heads of military departments and Services, and many other high-ranking military and civilian members participated in this debate. The debate and its results will be addressed in detail in Chapter 3, but it is sufficient to state here that the NSA was highly contentious at the time of its creation, and it is not clear that the defense organization it created was optimum for its time. Moreover, while the law has seen some change over time, particularly in 1949, 1958, and 1986, the basic organization

and assignment of functions amongst the Services have remained largely constant. This stability in organization has persisted despite some rather extreme changes in the external environment, including the end of the Cold War, globalization, rapid advancement and proliferation of technology, and significant changes in the character of warfare. Given all this change, it is questionable whether the national defense organization created under contentious conditions in 1947 is the best solution for the U.S. Armed Forces of 2013, much less Joint Force 2020 as it aims for globally integrated operations.

Considering all the above, the problem statement for this thesis is: **"How can the Armed Forces of the United States be reorganized to improve efficiency and effectiveness while supporting the CJCS' concepts of globally integrated operations and mission command?"**

## Thesis

The thesis of this paper is: **"Common aspects of personnel policy, combat service support (CSS), and aviation must be unified across the military Services. Unification of these functions will improve military efficiency and effectiveness and enable the CJCS' concepts of globally integrated operations and mission command."** The lack of major organizational reform in the DoD since 1947 has led to significant unnecessary redundancy in these areas, allowed fundamental barriers to jointness and operational flexibility to persist, and resulted in suboptimal operational effectiveness and efficiency. While the common aspects of personnel policy, CSS, and aviation are only some of many possible focus areas for reform, Chapter 2 will show that the selected areas represent a high potential to improve efficiency and effectiveness. Additionally, the history of reform, which will be presented in Chapter 3, indicates that

reform in more radical ways may be politically untenable. Thus, unification of personnel policy, CSS, and aviation are both feasible and likely to result in a high payoff.

## Impact

Simplification of military structure; elimination of redundant organizations, policies, and processes; and improved commonality amongst the Services will lead to a more effective and more efficient military force. Military effectiveness and efficiency are always relevant. They are perhaps more relevant today given the fact that U.S. military budgets are shrinking while national leaders are unwilling to accept a stated reduction in national strategic ends, and the strategic environment is becoming more threatening. Greater unification of the Services is the only way to achieve the CJCS' concepts of globally integrated operations and mission command.

## Roadmap and Scope

Chapter 2 of this paper will describe in more detail the potential benefits of unification and also establish terminology for the thesis. Chapter 3 will provide a history of military organization, roles, missions, and functions, and establish the boundaries of Legislative and Executive Branch powers with regards to defense reform. Chapter 4 describes the thesis proposals in detail. Chapter 5 provides recommendations on how to implement the proposals, including actions by senior military and civilian officials in DoD, the President, and Congress. Chapter 6 provides a summary and conclusion.

The scope of this thesis is limited primarily to an evaluation of the three Departments and four military Services that always operate under DoD, that is the Department of the Army, including the Army as a Service; the Department of the Navy, including the Navy and the Marine Corps as Services; and the Department of the Air

Force, including the Air Force as a Service. To a lesser degree, the thesis addresses the functionality and organization of the combatant commands and the Joint Chiefs of Staff. It is recognized that the Coast Guard is also one of the Armed Services. Some of the thesis recommendations may be directly applicable to the Coast Guard. However, as the Coast Guard normally operates under the Department of Homeland Security, some of the recommendations may not directly apply. It is also acknowledged that Special Operations Command has some Service-like functions. However, special operations forces are drawn from the Service components and largely use the Service policies and systems for the areas applicable to the thesis. Thus, while the thesis does not directly address special operations, the recommendations will apply to them. Likewise, the thesis does not directly address the organization of the Reserve Component. However, all of the unification proposals for the Active Component will either directly impact the Reserve Component, or can be easily expanded to cover it. Finally, the thesis does not address the organization of the 21 defense agencies and field activities operated by DoD. All of the aforementioned organizations are worthy of analysis under a full-blown roles and missions review and much of the thinking guiding this thesis can and should be applied to them.

Finally, the proposals contained in Chapter 4 are by necessity described at a broad level, with details limited by the available research time and material. Actual reorganization of the Armed Services is a very large and complex project, which will require scores of subject matter experts to come together cooperatively to plan and execute. As Chapter 5 will discuss, these barriers can be overcome, given adequate support by senior DoD officials and legislators.

# CHAPTER 2: STARTING WITH WHY

## Introduction

The purpose of this chapter is to answer the question: Could greater unification of the common aspects of personnel policy, combat service support (CSS) and aviation result in greater effectiveness and efficiency while enabling the globally integrated operations and mission command? If the answer to this question is "no," then the thesis is disproved. If it the answer is "yes," then a case for change can be built based on demonstrated advantages of unification.

The chapter will begin with a discussion of "roles and missions" terminology to set the stage for the remainder of the paper. Chapter 1 has already identified globally integrated operations and mission command as drivers of change. These concepts will be further expanded and linked to needed organizational change. Additionally, some specific shortcomings of the current Armed Forces organization will be highlighted in order to demonstrate the benefits of unification regardless of the eventual success of globally integrated operations and mission command.

## Terminology

Some of the terms used in this paper have specific meanings in the context of Armed Forces organization, meanings which have shifted over time and across documents. In particular, the phrase "roles and missions" and the individual terms, "role," "mission," and "function" have gathered differing definitions over time, allowing for potential confusion. Additionally, the concept of "unification" requires definition.

The following discussion will provide a common terminology baseline for this paper while pointing to some of the shifting definitions readers may encounter in other works.

**Roles, Missions, and Functions:** The phrase "roles and missions" dates at least to the Congressional Hearings on unification of the armed Services following WWII.[1] It refers to the broad roles and specific functions performed by forces from each of the Services; there is not a differentiation between the individual terms "role" and "mission" when used together in this phrase. The phrase is meant to delineate, separate, and assign responsibilities amongst the Services in order to minimize redundancy and gaps. Unfortunately, while the phrase "roles and missions" carries well-understood connotations, it has no definition in an authoritative document. The phrase has been used marginally in law, notably in the Goldwater-Nichols Act of 1986, which tasked the Chairman of the Joint Chiefs of Staff (CJCS) to recommend "changes in the assignment of functions (or roles and missions)" of the Armed Services every three years.[2] Additionally, in 1993, Congress directed the creation of an independent "Commission on Roles and Missions of the Armed Forces," to "review…the appropriateness…of the current allocations of roles, missions, and functions among the Armed Forces; evaluate and report on alternative allocations; and make recommendations for changes in the current definition and distribution of those roles, missions, and functions."[3] Current law, implemented in 2008, requires the CJCS and the Secretary of Defense to perform a Quadrennial Roles and Missions Review. In conducting this review, the CJCS is directed

[1] Warren A. Trest, *Air Force Roles and Missions: A History* (Washington, DC: Air Force History and Museums Program, 1998), ix.

[2] James H. Kurtz, with John H. "Scot" Crerar, *Military Roles and Missions: Past Revisions and Future Prospects,* IDA Paper P-4411 (Alexandria, VA: Institute for Defense Analyses, March, 2009), C-2.

[3] National Defense Authorization Act for Fiscal Year 1994, PL 103 – 160, November 30, 1993 (as amended), quoted in *Directions for Defense: Report of the Commission on Roles and Missions of the Armed Forces* (Washington, DC: Government Printing Office, 1995), ES-1.

to "prepare and submit to the Secretary the Chairman's assessment of the roles and missions of the armed forces and the assignment of functions to the armed forces, together with any recommendations for changes in assignment that the Chairman considers necessary to achieve maximum efficiency and effectiveness of the armed forces."[4] However, the phrase has never been defined in law. The detailed instructions of current law require the CJCS and Secretary to describe the "core mission areas," "core competencies," and "capabilities" of the Armed Forces—not to recommend changes in "roles" and "missions," which are undefined in law.

The best-defined term for what the Services do is actually "functions" as that word is the only one defined in law. Additionally, the term "functions" is in the title of the historic Key West Agreement of 1948, in which Secretary of Defense Forrestal documented the results of a meeting with the Joint Chiefs of Staff to better define Service responsibilities following passage of the National Security Act (NSA) of 1947. Future Secretaries of Defense reiterated and republished the tenets of the Key West Agreement, with some refinement, always retaining the operative term "functions" to describe what the Services do. The current iteration is Department of Defense Directive (DODD) 5100.01, *Functions of the Department of Defense and Its Major Components.*

The Joint Chiefs of Staff provide definitions for the terms "role" and "function" (the latter reiterated from law) in Joint Publication 1 (JP-1), *Doctrine for the Armed Forces of the United States*:

> The terms "roles and functions" often are used interchangeably, but the distinctions among them are important.
>
> a. "Roles" are the broad and enduring purposes for which the Services and USSOCOM were established in law.
>
> b. "Functions" [are] the appropriate assigned duties, responsibilities,

[4] Title 10, U.S. Code, Sec. 118b.

> missions, or tasks of an individual, office, or organization. As defined in the National Security Act of 1947, as amended, the term "function" includes functions, powers, and duties (Title 50, USC, Section 410[a]).[5]

The separate word "mission" is not defined in law or in joint doctrine in a useful way for this discussion. Previous efforts by at least two chairmen of the Joint Chiefs of Staff and by the 1994 Commission on the Roles and Missions of the Armed Forces provided definitions of the term "mission" as tasks given by the President or Secretary of Defense to the combatant commanders. Thus, "mission" used by itself is seen by senior leaders to represent *employment* of the Armed Services and not their *development*.

Considering all the above, this paper will rely on the current JP-1 definitions for "function" and "role." In particular, the main thrust of the thesis is on unifying certain **functions** of the Services, rather than the **roles**. The paper will occasionally use the phrase "roles and missions" synonomously with the term "functions," particularly when addressing historical events.

**Unification**. For purposes of this thesis, the term "unification" refers to the merging of organizations, policies, and/or functions among military organizations. In its extreme, unification is the combination of all military departments and Services into one permanent organization. Unification can refer to the merging of joint military forces from multiple Services into a joint force (i.e. in an employment role) or to the merging of Service and department functions (in a developmental role). Historically, U.S. Armed Forces have undergone much change to ensure unification in operations—also referred to as "jointness." However, the thrust of this thesis is on unification in the Service and

[5] U.S. Joint Chiefs of Staff, *Doctrine for the Armed Forces of the United States*, Joint Publication 1 (Washington, DC: Joint Chiefs of Staff, May 2, 2007, incorporating Change 1, Mar 20, 2009), II-3; embedded reference to Title 50 U.S. Code, Sec. 410[a].

Departmental functions, with a partial goal of improving jointness. The term unification was used by advocates of merging the Army, Navy, and Marine Corps under one Department and/or into one Service during the Interwar period and then frequently during the discussion and debate about Armed Forces reform during and following WWII.

Unification can be seen as movement along a spectrum rather than as an absolute. Also, there is often more than one organizational scheme to increase unification from a given starting point. For example, the unified structure that Congress eventually approved in 1947 consisted of three Cabinet-level departments (Army, Air Force, and Navy), and four Services (Army, Air Force, Navy, and Marines), all "unified" in a National Military Establishment under the general direction of a Cabinet-level Secretary of Defense. This was adjusted to provide more unification in 1949 by subordinating the military departments to the newly created Department of Defense, a renamed version of the National Military Establishment. Other unification options, such as a single military department, assigning all military aviation to the Air Force, or merging the Marine Corps into the Army, were considered and discarded, both in 1947 and in 1949. Thus, unification occurred in 1947, but it was not absolute. This paper will use the term unification to refer to historical movements toward greater unification, and will also urge additional unification in certain areas, though not absolute unification resulting in one military Service under one department.

## Globally Integrated Operations and Mission Command

The CCJO concept of globally integrated operations depends on eight key elements, five of which are highlighted in the following list:

- **Mission Command**

- **Seize, Retain and Exploit the Initiative**
- **Global Agility**
- Partnering
- **Flexibility in Establishing Joint Forces**
- **Cross-Domain Synergy**
- Use of Flexible, Low-Signature Capabilities
- Increasingly Discriminate to Minimize Unintended Consequences[6]

The five elements in bold require a highly flexible military organization and a high degree of cross-Service understanding that currently do not exist in the Joint Force. The key idea in globally integrated operations and one that clearly traces across these elements, is that military forces need to be able to rapidly form and reform teams with different types of units from different Services and combatant commands, at low echelons. Also, readers may be unfamiliar with "cross-domain synergy," as it is a relatively new term to the joint lexicon, but it is key to this discussion.

Cross-domain synergy is described in the *Joint Operational Access Concept* (JOAC), another document released by the Joint Staff in 2012. Cross-domain synergy is defined as "the complementary vice merely additive employment of capabilities in different domains such that each enhances the effectiveness and compensates for the vulnerabilities of the others."[7] According to the JOAC, "future joint forces will leverage cross-domain synergy to establish superiority in some combination of domains that will provide the freedom of action required by the mission."[8] An illustrative vignette of

[6] U.S. Joint Chiefs of Staff, *Capstone Concept for Joint Operations: Joint Force 2020* (Washington, DC: Joint Chiefs of Staff, September 10, 2012), 4 - 8.

[7] U.S. Joint Chiefs of Staff, *Joint Operational Access Concept* (Washington, DC: Joint Chiefs of Staff, January, 2012), 14.

[8] Ibid.

globally integrated operations including mission command, cross-domain synergy, and the other three bold elements in the list above in ways that exceed current capabilities might look like the following:

> *An Army infantry brigade in Europe, a Marine air wing in the Pacific, and an Air Force C-130 squadron in the contiguous United States (CONUS) are directed to form a Joint Task Force (JTF) and deploy on short notice in response to a contingency in North Africa. The JTF receives additional support from an Air Force MQ-9 squadron operating primarily from CONUS with a forward deployed launch and recovery detachment attached to the JTF, and can expect occasional augmentation over the course of operations from global and theater-assigned Air Force assets. The JTF also receives support from a CONUS-based Navy Cyberspace unit and from Air Force Space Command. The Army brigade commander is designated the joint force commander (JFC) and receives relatively terse orders, consisting primarily of United States Africa Command commander's (AFRICOM/CC) intent and purpose. The Air Force C-130 squadron is to be attached to the Marine Air Wing to simplify the JTF chain of command and provide the C-130 squadron with operational support. The Army brigade is expected to provide combat service support functions to the entire JTF. Another JTF is operating in the vicinity performing a different mission, under the command of a Navy captain. Due to the close proximity and the potential for short reaction times, the commanders of both JTFs are directed to be mutually supportive over time—sharing information and determining between them when one or the other's mission takes priority based on the AFRICOM/CC's intent. Generating cross-domain synergy with air, space, and cyberspace assets and an airfield assault with airborne troops, the first JTF gains access to its Joint Operations Area, seizes the initiative, and conducts operations to bring the contingency to a successful conclusion. Upon completion, the JTF disaggregates and individual units return to their home stations.*

Aside from technology and connectivity issues, the units in this scenario would likely face great, if not insurmountable difficulties under today's organizational structure. It would be unrealistic to expect the level of integration this scenario assumes from personnel and units using existing systems, policies, and training programs. Differences in Services are too great to expect anything more than deconfliction of unit operations from the joint team described above, particularly on short notice. Each unit would have to channel requests for most administrative and logistics support up through its Service

channels. Personnel would likely face some degree of culture shock and friction when thrust into side-by-side operations with members from other Services with little time to standardize processes. Forming a truly integrated joint team with unified command would be impossible.

Yet, given a smaller future force and the future security environment posed in the CCJO, this scenario does not seem like an unreasonable mission capability to expect from joint forces in 2020. The technology requirements to connect the elements of the JTF are not extreme—they exist today. What is missing is organizational flexibility, deep cross-Service understanding, and interoperability. The CCJO covers this well in its proposition that the Joint Force needs to "become pervasively interoperable both internally and externally…interoperability should be widespread and exist at all echelons. It should exist among the Services and extend across domains…."[9]

An obvious way to increase the ability of the Armed Forces to achieve such interoperability is to increase standardization in training, terminology, logistics, systems, and operations. Thus, the logistics function of the Army brigade should be able to order supplies and materiel (e.g. food, parts, and equipment) for the whole JTF through a common system without difficulty. Likewise, finance and personnel systems should be seamless, regardless of Service. If the Army brigade needs augmentation of its combat support or combat service support functions, individuals from any Service should be able to deploy into and work directly in the brigade organization. Aircraft operators from all Services should have a common concept and terminology for airspace deconfliction—they should train using standardized tactics, techniques, and procedures. Likewise for ground and maritime operations, though these domains tend to be more limited in the

[9] Joint Chiefs of Staff, *CCJO*, 10.

number of different Services represented. Space and cyber operations should be standardized for easy synchronization amongst the Services. Command, control, and communication systems should be in place and standardized at low echelons and allow for incorporation of operations in all domains. For example, while there is no expectation that an Army brigade turned into a mini JTF headquarters would suddenly host an air operations center, it might need a standardized method of planning and displaying important aspects of air operations, such as sortie numbers and types available, status of current air operations, etc. Again, the same components should be in place for planning and tracking operations in the maritime, space, and cyber domains.

On the other hand, the CCJO also addresses the risks of implementing globally integrated operations. Aside from the risks of not being able to develop the required technology and that external partners may not choose to participate (which is important, but not the focus of this paper), the CCJO acknowledges four hazards that achievement of globally integrated operations could pose to the force:

- An overemphasis on decentralization may lead to lack of coordination and inefficient use of scarce resources
- Standardization may lead to decreased diversity, flexibility, versatility, and, ultimately, effectiveness
- Elimination of redundancies may lead to operational brittleness and risk
- The emphasis on organizational flexibility may limit operational effectiveness[10]

Importantly, these hazards apply directly to any Defense unification effort, regardless of the purpose, and they will be revisited in Chapter 4, prior to addressing the specific proposals of this thesis.

[10] Ibid., 14.

**Roles and Missions Studies: Redundancy, Effectiveness, and Efficiency**

According to writers at the Institute for Defense Analyses (IDA), Congress has repeatedly called for Defense reform since 1986. The writers say that the constant target since 1986 has been redundancy often, but not exclusively, represented by the perceived existence of "four Air Forces," (i.e., each of the four Services operates aircraft).[11] Taking a broader and longer term view, military reform has been a heavy source of Congressional activity since at least World War I (WWI), with proponents seeking one or both of two goals: elimination of redundancy amongst the Services or improved military effectiveness. Another way to phrase these objectives is to say that military reform efforts tend to target military efficiency, military effectiveness, or both. The relatively new Joint Chiefs of Staff succinctly captured this point in their direction to a special committee to look at military organization in May 1944: "The basic question which underlies this problem is: What is the organization which will provide the most effective employment of our military resources in time of war and their most efficient preparation for war, in time of peace?"[12] An example of reform targeted primarily at improving military effectiveness is the Goldwater-Nichols Act of 1986, which aimed to increase the influence of combatant commanders and the CJCS, and to improve joint interoperability. However, this reform did little to improve military efficiency or eliminate redundancy, and may even have resulted in increased combatant command staffs at the expense of operational unit manning. As evidence, the total manning of combatant commands grew from under 60,000 personnel to over 96,000 between 1988 and 2010—while the total

[11] Kurtz with Crerar, ES-7.

[12] U.S. Joint Chiefs of Staff, "Joint Chiefs of Staff Paper, Reorganization of National Defense," (Joint Chiefs of Staff, May 9, 1944), Enclosure to Letter to the Secretary of War and the Secretary of the Navy, 19 May 1944. Published in U.S. Cong., House, Select Committee On Post-War Military Policy, *Proposal to Establish a Single Department of the Armed Forces: Hearings Before the Select Committee On Post-War Military Policy Pursuant to H. Res. 465, Part 1.* 78th Cong., 2nd sess., 1944, 143.

active duty force shrank from 2.1 million to 1.4 million.[13] Conversely, an example of reform that primarily improved efficiency was the series of agreements between the Army and Air Force in the 1960s and 1970s regarding the development of fixed wing and rotary wing aircraft. These agreements allowed the Services to minimize redundancy in these areas. It should be noted that any improvement in efficiency has at least a by-product effect on effectiveness in that it frees up more resources for primary mission functions.

## Competing Redundancy in Common Military Functions

The discussion thus far in this thesis has presented the CJCS's concept of globally integrated operations as an ideal goal for improving military effectiveness—that is, under globally integrated operations, joint forces will be more effective at rapidly forming teams and responding to crises in an integrated fashion. As it turns out, pursuit of this goal can also lead to a more efficient military by reducing unnecessary redundancy. While General Colin Powell, as Chairman of the Joint Chiefs of Staff (CJCS), persuasively dismissed the proposition that the mere existence of aviation arms in the Army, Navy, and Marine Corps constituted redundancy in 1993, he did acknowledge aspects of aviation that were unnecessarily redundant, including flight training.[14] Following his review, the Services combined some aspects of pilot training; however, a great deal of unnecessary redundancy in aviation still remains. Additionally, there are a number of other common functions among the Services that could be standardized or consolidated in some way to achieve greater efficiency and effectiveness.

[13] Robert P. Kozloski, "Building the Purple Ford: An Affordable Approach to Jointness," *Naval War College Review* 65, no. 4 (Autumn, 2012), 56.

[14] Colin L. Powell, *Chairman of the Joint Chiefs of Staff Report on the Roles, Missions, and Functions of the Armed Forces of the United States* (Washington, DC: Joint Chiefs of Staff, February, 1993), III-10 - III-12, III-18 - III-20..

Aviation provides a good starting point for this discussion, as it has historically been a major point of friction and concern among the Services. In a perfect world, the very existence of aviation should be a unifying force. Aviators have a common background as they all, regardless of their specific platform, have to spend a year or more learning the same complex rules for flying in international and U.S. airspace, as well as the procedures for flying in joint military-controlled airspace. However, each of the Services operates its own aviation program, consisting of Service-unique policies and procedures for training and evaluating aircrews, enterprise databases for tracking aircrew training requirements and flight hours, aircrew and operations scheduling programs, aviation safety programs, and all the headquarters staffs necessary to administer these programs. Similarly, redundant policies and systems exist for maintaining aircraft and for training maintenance personnel. A more efficient way to develop aviation would be for Department of Defense (DoD) to provide one unified set of policy documents and systems for military aviation, with Service policy focused on tactics, techniques, and procedures (TTPs) for Service-specific aircraft and missions.

The result of operating four different aviation programs is **competing redundancy**. That is, each Service performs many very similar functions to sustain and operate its aviation units, but it does so differently than the other Services. The Department of Defense as a whole pays two prices for this competing redundancy. First, there is an efficiency tax—the maintenance of four different sets of policy and systems is more costly than just one set of policies and systems for the entire DoD. Second, and perhaps more importantly, there is a tax on interoperability, which can be viewed as a tax on effectiveness. Training aviators and maintainers in the four Services to different

standards using different terminology and training systems results in a reduction in interoperability at a cultural level.

This is not to say that jointness and interoperability are nonexistent in aviation. As discussed, there is a large common rule set for aviation. Also, many aviators receive their initial training in cross-Service programs and there are a number of recurring joint flying exercises. A 2007 study found that Air Force and Navy aviation integration has increased dramatically since 1991, particularly in the realm of combat air strike integration.[15] However, even small differences can slow communication, and the mere existence of Service-specific policies perpetuates differentiation. In short, developing aviation in semi-synchronized but redundant Service stovepipes is an inefficient way to yield the final desired product of interoperability. Moreover, aviation is just the tip of the iceberg for competing redundancy.

In fact, the majority of functions performed by the Services are common but nonstandard. DODD 5100.01, updated in 2010, lists the following common functions for all military departments:

- Recruiting
- Organizing
- Supplying
- Equipping (including research and development)
- Training
- Servicing
- Mobilizing

[15] Benjamin S. Lambeth, "Air Force-Navy Integration in Strike Warfare," *Naval War College Review* 61, no. 1 (Winter 2008).

- Demobilizing
- Administering (including the morale and welfare of personnel)
- Maintaining
- Construction, outfitting, and repairs of military equipment
- Construction, maintenance, and repair of buildings, structures, and utilities as well as the acquisition, management, and disposal of real property and natural resources[16]

Most of these functions are not directly related to the unique military capabilities that the departments and Services provide, and thus have no military requirement to be different. A prime example buried within the category of "Administering" is human resources (or personnel) policies and systems. While some basic personnel policy, such as that for pay, leave, and travel is standardized by DoD, most is not. Each of the Services, therefore, has its own job classification system (e.g. "military operational specialty", "rating", "Air Force specialty code"), its own rules and forms for performance evaluations and promotions, its own database for records storage, and its own headquarters. As with aviation, the competing redundancy in personnel systems comes with a tax on efficiency and effectiveness. It takes time for personnel from different Services in a joint organization to learn each other's language and perspective. Moreover, opportunities for cross-Service assignments, a potential way to improve joint understanding early and "on the job," are hampered by the different personnel systems. Members stationed at another Service's base frequently have to reach back to a home-Service personnel unit for many functions; supervisors of these members have to (or ought to) get advice from a senior member of the ratee's Service when writing

[16] U.S. Department of Defense, *Functions of the Department of Defense and Its Major Components*, Department of Defense Directive 5100.01 (Washington, DC: Department of Defense, December 21, 2010), 25.

performance evaluations. In short, there is friction that has a small but real impact on interoperability, and there certainly is competing redundancy in systems and policies.

The competing redundancy discussed in personnel systems extends to all the other common military functions listed above. Simply put, each of the Services is almost entirely self-sufficient within an umbrella of general policy provided by law and DoD. Each Service sets policy for, budgets, develops, and executes all its own combat service support functions. The failure of the recent Joint Basing effort to develop cost savings is another example of the inefficiency caused by this organizational scheme. In its 2005 Base Realignment And Closure recommendation, DoD projected that it would save $2.3 billion over twenty years by consolidating a number of individual Army, Navy, Air Force, and Marine Corps bases into 12 joint bases, each with a single Service as the lead. Five of those joint bases were created in 2009, with the remaining seven created in 2010. Unfortunately, GAO now estimates DoD will only save $249 million over twenty years.[17] The central reason for the lack of cost savings can be found in the GAO paraphrasing of a DoD response to one of its recommendations from a previous report:

> DOD stated that the creation of the joint bases from separate installations is **equivalent to the mergers of corporations with very different financial systems, management structures, operating procedures, and cultural differences**. DOD has decided it is important to empower each joint base commander to design, implement, and adapt cost efficient and effective approaches to their unique situations while adopting new and cross-cutting business practices, thereby making them incubators of innovation. Therefore, DOD has decided to allow for an extended transition period and defer near-term savings.[18] (emphasis added)

[17] U.S. Government Accounting Office, *DOD Joint Bases: Management Improvements Needed to Achive Greater Efficiencies*, GAO-13-134 (Washington, DC: Government Accounting Office, November 2012), 1 - 5.

[18] Ibid., 27.

Essentially, DoD appears unable and/or unwilling to truly consolidate support functions for multiple Services under one umbrella. This is most likely due to the current overarching DoD structure that provides for independent, self-sufficient military departments and Services.

## Decreasing Tooth-to-Tail Ratios and Growing Staffs

In addition to the competing redundancy in aviation and in combat service support functions, a major source of inefficiency in recent years is the growing expenditure of effort and resources on non-mission activities. Former Secretary of Defense Robert Gates discusses this imbalance using a "tooth-to-tail" analogy:

> Sustaining this "tooth" part of the budget—the weapons and the soldiers, sailors, airmen and Marines who use them—is increasingly difficult given the massive growth of other components of the defense budget, the "tail" if you will—operations, maintenance, pay and benefits, and other forms of overhead. America's defense enterprise has consumed ever higher level[s] of resources as a matter of routine just to maintain, staff, and administer itself.[19]

Secretary Gates also stated in a 2010 speech,

> Almost a decade ago, Secretary Rumsfeld lamented that there were 17 levels of staff between him and a line officer. The Defense Business Board recently estimated that in some cases the gap between me and an action officer may be as high as 30 layers. The private sector has flattened and streamlined the middle and upper echelons of its organization charts, yet the Defense Department continues to maintain a top-heavy hierarchy that more reflects 20th Century headquarters superstructure than 21st Century realities. Two decades after the end of the Cold War led to steep cuts in U.S. forces in Europe, our military still has more than 40 generals, admirals, or civilian equivalents based on the continent.[20]

[19] Robert Gates, "American Enterprise Institute (Defense Spending)" (speech to the American Enterprise Institute, May 24, 2011), http://www.defense.gov/speeches/speech.aspx?speechid=1570 (accessed February 23, 2013).

[20] Robert Gates, "Eisenhower Library (Defense Spending)" (remarks, Abilene, Kans., 8 May 2010), http://www.defense.gov/speeches/speech.aspx?speechid=1467 (accessed February 23, 2013).

An Airman recently published an article putting further specificity to this increased overhead within the Air Force. Colonel Jeffery Sundberg studied the ratios of civilians, field grade officers (defined for his study as majors and lieutenant colonels only), and colonels as compared to the overall population of the Air Force. His premise was that those three personnel groupings tend to be concentrated at staffs above wing level, and thus provide a good measure of overhead. He found that all three ratios grew steadily from 1950 to 2010. Specifically, he found that "for every 1,000 personnel in 1950, the Air Force employed 4.5 colonels, 28 [field grade officers], and 376 civilians."[21] In 2009, the numbers were an astonishing 11 colonels, 74 field grade officers, and 488 civilians per 1,000 Airmen.[22] Colonel Sundberg's recommendation was to eliminate the Major Command organizational layer from the Air Force and redistribute functions to the Air Staff and the Numbered Air Forces. Given Secretary Gates' comments, similar statements can likely be made about the other Services and about the entire DoD at large. In fact, the Defense Business Board found in 2010 that DoD personnel assigned to joint staffs and defense agencies had grown by 50,000 personnel between 2000 and the projected numbers for 2011.[23]

Robert Kozloski proposes that one reason for this increase in staffing may be the way jointness is instilled in the force. He contends that the combatant commands and other joint organizations are as large as they are for two reasons—to support the legal requirement instituted by the Goldwater-Nichols Act for officers to become joint qualified in order to be eligible for flag rank; and to enable the functioning of a

[21] Jeffery P. Sundberg, "A Case of Air Force Reorganization," *Air & Space Power Journal* 27, no. 2 (March – April 2013): 62.

[22] Ibid.

[23] Defense Business Board, "Reducing Overhead and Improving Business Operations: Initial Observations" (Washington, DC: U.S. Department of Defense, July 22, 2010), 17.

joint/unified command by officers who have been developed in Service stovepipes. He points out a number of flaws with this system, though he acknowledges that jointness must be maintained. He recommends some different solutions for obtaining jointness. One of these is to combine ROTC programs across the country (sometimes multiple Service programs at the same college) into a joint program for the first two years, followed by Service specialization. Another is to change the law so that the Services are only required to maintain a certain portion of their officers as joint qualified, rather than to give every promotable officer joint experience. This would enable Services to grow a number of flag-rank officers with deeper Service-specific knowledge than the current system allows, while also developing a number of officers with a more general, joint focus. These suggestions, Kozloski argues, would decrease joint staff and Service overhead. Importantly, Kozloski argues that starting officers off with a joint focus in college would be a better way to instill jointness than our current process of adding joint training later in an officer's career.[24] This meshes with the CJCS' determination to instill jointness sooner and deeper.

## Conclusion

In conclusion, CJCS' concept of globally integrated operations, reliant upon mission command and cross-domain synergy, will lead to a much more effective joint force able to react with agility in accordance with commander's intent at low echelons. However, the Armed Forces require a much higher level of homogeneity in their underlying structure to enable this concept. Personnel policy, combat service support, and aviation are excellent places in which to build homogeneity. All the Services

[24] Kozloski, 41 - 63.

currently perform these activities in an environment of competitive redundancy, resulting in four sets of policy, systems, and other infrastructure for these activities. All of these trends lead to reduced efficiency and effectiveness of the Armed Forces in conducting their assigned missions and an unnecessarily low tooth-to-tail ratio.

This introduction to this chapter posed the question: Could greater unification of the common aspects of personnel policy, CSS, and aviation result in greater effectiveness and efficiency while enabling the globally integrated operations and mission command? The facts and analysis provided result in a definitive answer of "yes." Next, Chapter 3 will provide a review of history to enable an understanding of how the current structure of the Armed Forces came to be.

# CHAPTER 3: HISTORY OF MILITARY ORGANIZATION AND FUNCTIONS

## Introduction

The purpose of this chapter is to answer the question: What events, forces, and decisions led to the current organization of the Armed Forces? To answer this question, this chapter presents a history of organizational change in the Armed Forces, focusing on the influences for and against greater unification. A historical view will illuminate why particular organizational choices were made and others rejected or not considered. Additionally, tracing legal and directive documents such as the Constitution, U.S. law, and Department of Defense (DoD) regulations through history enables an understanding of which agencies have the power to create and enforce future change. The history presented in this chapter will enable development of specific proposals for organizational reform in Chapter 4.

As will be shown in the remainder of this chapter, the present organization and level of unification of the Armed Forces is the result of over 220 years of national history. However, change was not constant over that period. Rather, change occurred in spurts following major shifts in the external environment or clear demonstrations of problems with the existing organization, generally in operational failures. Thoughts of unification were nearly nonexistent prior to 1900, as a small peacetime Army and Navy with little overlap in operational responsibilities or resource usage had small need for cooperation. Analysis shows that three factors forced the nation to move toward unification: the establishment of national interests overseas, the maintenance of a large peacetime military, and the expansion of military operations into the air and other

connective domains. Coincidentally, these three factors developed over roughly the same timeframe in the United States, 1900 - 1947. They continued to exist, each to greater or lesser degree, and continued to drive unification efforts after 1947. The unification factors are discussed next, followed by an overall history of unification broken into three periods, beginning in 1789, 1900, and 1947.

## Three Driving Factors for Unification

Before diving into the three periods it is important to highlight the three factors that significantly distinguish the United States and its Armed Forces after 1947 from those that existed before 1900, namely the establishment of national interests overseas, the maintenance of a very large and complex peacetime military force, and the expansion of military operations into the air and other connective domains. All three of these factors began to appear at the turn of the Twentieth Century and had matured to a significant point by 1947, resulting in a reshaping of the military and forever preventing a return to the past model of highly separated forces. More importantly, these factors are the primary drivers for all past and present unification efforts. Absent these factors, there is little need to expend resources and energy on unification. A small Army and Navy focused primarily on defending the homeland and only able to interact at the coastlines have a limited need to cooperate in peacetime or in combat. This was largely the case for the U.S. Army and Navy from their inception until the Spanish-American War in 1898.

The Spanish-American War exposed poor Army-Navy cooperation as a shortcoming. Additionally, following the war, the United States became a world power, acquiring overseas territories and an appetite for overseas natural resources and markets. U.S. interests overseas continued to grow through the first half of the Twentieth Century,

such that by 1947, the United States was one of only two world superpowers. Projecting this trend forward, globalization continued after 1947, and the United States has even greater overseas interests today. Defending these overseas interests after 1947 required a much higher level of cooperation between the Services than existed prior to 1900. Moreover, protection of these interests drove a gradually increasing military force level, which had its own impact on unification.

The massive difference in the size of the peacetime military after 1947 and that prior to 1900 is readily apparent from the graph in Figure 1 (numbers also listed in tabular format in Appendix A). Historically, the United States did not maintain a large standing military in peacetime prior to 1900. This tradition can be traced to an initial national distrust of large standing armies following the revolutionary war, but also to the limited resources and limited impact of external threats or interests. Regardless of its origin, U.S. tradition had been to maintain a very small Army and Navy during peacetime, ramp up military forces when required for war, and then immediately draw down at war's conclusion. Prior to 1900, active duty military forces numbered well under 50,000 during peacetime. This began to change as the United States perceived greater threats and acquired greater interests abroad and simultaneously developed an economy able to support a larger force. After the Spanish-American War, the United States grew its peacetime forces to about 100,000, followed by a further increase to approximately 250,000 after WWI. Yet, these increases pale in comparison to the post-WWII expansion of the peacetime active duty military to numbers between 1.5 million to 2.5 million, not to mention large numbers of National Guard, Reserve, civilian, and contractor personnel (about another 2.5 million today). Military forces this large clearly

require inter-Service coordination, if for no other reason than because they draw on the same national resources for personnel, transportation, and materiel. Thus, the massive increase in the size of the force between 1900 and 1947, itself driven by increasing overseas interests, became a driver for unification. However, while these first two factors were significant, the most influential force for unification was the advancement of military operations into the air domain.

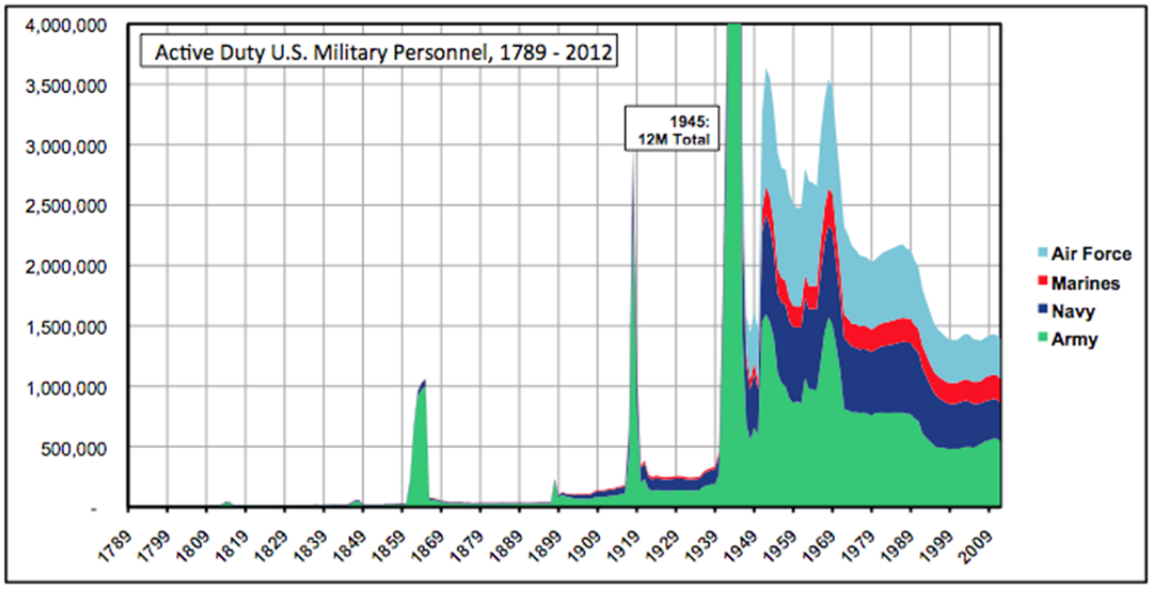


**Figure 1. Active Duty Military Personnel, 1789 - 2012**[1]

Paralleling the growth in the size of the peacetime force, military access to the air can be traced to the first demonstration of sustained fixed wing flight by the Wright brothers in 1903, eventually leading to purchase of the first U.S. Army airplane in 1909, followed shortly by Navy and Marine Corps acquisitions.[2] As James R. Locher (among

[1] Chart created by author from data in: Scott Sigmund Garner, "Table Ed26-47: Military Personnel on Active Duty, by Branch of Service and Sex: 1789 – 1995," in *Governance and International Relations*, ed. Susan B. Carter et al., vol. 5 of *Historical Statistics of the United States: Earliest Times to the Present, Millenial Edition*, ed. Richard Sutch and Susan B. Carter (Cambridge, MA: Cambridge University Press, 2006) and personnel data published by the Department of Defense at http://siadapp.dmdc.osd.mil/personnel/military/miltop.htm (accessed Jan 6, 2013). Full data is listed in tabular form in Appendix A.

[2] Warren A. Trest, *Air Force Roles and Missions: A History* (Washington, DC: Air Force History and Museums Program, 1998), 2, 6. Also, note that this thesis uses powered fixed wing flight as the

many other writers) noted: "The advent of military aviation blurred the distinction between land and sea warfare—the basic organizing principle since the republic's beginning—and signaled the need for adjustments in organization and warfighting concepts."[3] Much like the growth in size of the U.S. military, operational use of the air domain and its overlapping effect on land and sea forces were initially minimal through World War I (WWI), grew rapidly after that point, and had matured to a high degree by 1947.

Paradoxically, the airplane had both a unifying and a separating effect on Armed Services organization. On one hand, it led to the creation of the Air Force as a separate Service. However, this separation was accompanied by overall unification of the Armed Forces under one Secretary of Defense and the creation of joint operational commands. As it turned out, the air was just the first of at least three **connective domains**, which all have a similar effect of driving cooperation and unification among the Services.

Connective domains are defined here as military operational domains with significant ability to rapidly impact operations in other domains across very large interfaces—to attack, defend, observe, reinforce, resupply, or provide a line of communication. The connective domains of interest for this thesis are air, space, and cyberspace. Access to these domains requires a high level of inter-Service coordination that did not exist with a surface-bound army and navy. Capabilities and operations in the connective domains can influence, and be influenced by, capabilities and operations in all

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breakthrough for operations in the air domain. The Montgolfier brothers demonstrated the first hot air balloon in 1783 and military usage of hot air balloons for observation and artillery spotting prior to 1903 is well documented. Also, Otto Lilienthal built and flew piloted gliders beginning in 1891. As with many advances in technology, human (and specifically military) entrance into the air domain is defined by a blurry line.

[3] James R. Locher III, *Victory on the Potomac* (Washington, DC: NDU Press, 2012), 19.

other domains across very large interfaces. Interfaces are a good thing for militaries working to develop synergy between different types of forces (e.g., *blitzkrieg*, combined arms, AirLand Battle, and AirSea Battle). As already discussed, the Joint Staff recognizes the importance of cross-domain synergy to globally integrated operations and the Joint Operational Access Concept. On the other hand, interfaces can also become seams, creating vulnerabilities for enemy forces to exploit. They also can and have become sources of immense organizational friction, irrational developmental choices, and unnecessary redundancy during the peacetime development of forces.

The connective domains are fundamentally different from non-connective domains, such as land and sea. Of course, there is an interface between land and sea, and exploitation of this interface has contributed to military successes as far back as the Peloponnesian Wars. However, the interface between land and sea is limited to the coastline. Additionally, landlocked countries experience no interface and have no need to maintain a navy. Thus, prior to 1903, countries could and did develop and employ armies and navies in nearly complete isolation. Advancement of military operations into the air changed this dynamic, due to the fact that the air domain overlaps the entire surface of the land and sea while allowing much faster movement. In the United States, both the Army and the Navy grew to depend on air operations to support surface (and subsurface) operations, and thus soon began to see a need for coordination and deconfliction of activities and missions.

As with overseas U.S. interests, access to connective domains has continued to expand since 1947. Technology advancement has led to aircraft that are able to travel higher, faster, and farther with greater payloads; deliver to more precise locations; and

focus more and better sensors on the surface. Moreover, connective domain access and influence have expanded beyond the air domain. U.S. military forces are now able to effectively operate in space and cyberspace. While somewhat behind the air domain in their ability to directly influence and be influenced by operations on land and at sea, the capabilities and interconnectivity of space and cyberspace continue to expand. Speed of operations in these domains is significantly faster than in the air—up to nearly the speed of light in cyberspace. In light of the rapid development of connective domain technology over the last century, some degree of unification among the Services is now essential in order to ensure efficient force development and effective military operations.

The next section will discuss the overall history of Armed Service unification over three periods: before, during, and after the development of the unification factors.

### Period One: 1789 - 1900

The first historical period to consider begins with the activation of the Constitution in 1789 and extends to 1900, just after the Spanish-American War. This period is the longest of the three periods and, from a unification standpoint, the most stable. The Constitution and two laws set the structure of the Armed Forces at the beginning of the period. The organization of the Armed Forces then remained constant throughout, with very little interaction between the two small (in peacetime), separate components. Joint operations between the Army and Navy occasionally occurred during war, but these were the exception, and did not influence organization or development.

The legal basis for the existence of the Armed Forces rests in the U.S. Constitution, which was activated in 1789, vesting specific powers in both the Legislative Branch and the Executive Branch. Specifically, Congress is given the powers, “To

declare War…To raise and support Armies…To provide and maintain a Navy…[and] To make Rules for the Government and Regulation of the land and Naval Forces."[4] On the other hand, the Constitution states that the President "shall be Commander in Chief of the Army and Navy of the United States…."[5] In accordance with its Constitutional powers, Congress passed laws to establish a permanent, Cabinet-level War Department in 1789 and a Cabinet-level Navy Department in 1798 to provide civilian control of the Armed Forces.[6] Secretaries of both departments reported directly to the President for the next 150 years. Reflecting this separation of activity, different committees for Military Affairs (for the War Department) and Naval Affairs were established in both the Senate (in 1822) and the House (in 1816).[7]

For the entirety of the first period, the size of the peacetime military forces was tiny by today's standards, though it did increase gradually throughout the period. In 1789, total active duty members numbered 718 Soldiers, growing to 43,000 Soldiers, Sailors, and Marines by 1897. During the War of 1812, the Mexican-American War, and the Civil War, military forces surged much higher, only to be rapidly drawn down as soon as conflict ended. They surged once more for the Spanish-American War, but did not draw back nearly as much as previous wars, ending the period in 1900 with over 100,000 members on active duty.

Joint action between the Army and Navy was not completely absent during Period One. However, it occurred in limited circumstances during war and depended on coordination between commanders. Examples include Captain Thomas McDonough's

[4] U.S. Constitution, art. 1, sec. 8, cl. 11 – 14.
[5] U.S. Constitution, art. 2, sec. 2, cl. 1.
[6] James H. Kurtz, with John H. "Scot" Crerar, *Military Roles and Missions: Past Revisions and Future Prospects*, IDA Paper P-4411 (Alexandria, VA: Institute for Defense Analyses, March 2009), 3.
[7] Ibid., 3.

naval operations in support of ground operations at Plattsburg in the War of 1812, the amphibious landing and siege at Veracruz in the Mexican-American War (the first major amphibious landing in American history), and joint U.S. Army and Navy operations during the Vicksburg Campaign in the Civil War.[8] Indeed, President Polk praised the Army and Navy after the Veracruz campaign: "There was concert between the heads of the two arms of the service….By this means their combined power was brought to bear successfully on the enemy."[9]

However, the concept of impromptu joint operations ran into difficulties at the end of Period One. "Confusion and lack of coordinated, joint military action raised public criticism in the Cuban campaign of the Spanish-American War (1898). By the turn of the century, war had become too complex for ad hoc joint planning to be successful."[10] Thus, there was little perceived need for joint coordination during the majority of Period One but that had changed by 1900.

### Period Two: 1900 - 1947

Period Two begins in 1900 and extends to the passage of the National Security Act in the fall of 1947. As discussed in the beginning of this chapter, the U.S. Armed Forces, and indeed the country as a whole, experienced dramatic changes during this period. The three driving factors for military unification all appeared and matured over this timeframe. The United States participated in two world wars, developed nuclear

[8] Joint Chiefs of Staff, "Origin of Joint Concepts," Joint Chiefs of Staff, http://www.jcs.mil/page.aspx?id=12 (accessed January 11, 2013); and Lindsey Eilon and Jack Lyon, *White Paper: Evolution of Department of Defense Directive 5100.1 "Functions of the Department of Defense and Its Major Components"* (Washington, DC: Office of the Secretary of Defense, Director, Administration & Management, Organizational Management and Planning, April 2010), 22.

[9] Paul C. Clark and Edward H. Moseley, "D-Day Veracruz, 1847—A Grand Design," *Joint Force Quarterly* 10 (Winter 1995 - 96), 103.

[10] Joint Chiefs of Staff, "Origin of Joint Concepts."

weapons, and became one of two global superpowers. The country greatly expanded its peacetime military forces, beginning the period with 100,000 on active duty, increasing to 250,000 after WWI and to a massive 1.5 million after WWII. Wartime forces likewise dwarfed those of previous wars, reaching three million in 1918 and twelve million in 1945, compared to a maximum of about one million during the Civil War. More significantly, the introduction of the airplane made warfare much more complex, and increasingly so through the period.

U.S. status and the global environment changed significantly following the end of the Spanish-American War:

> The rise of the United States to world power status at the dawn of the twentieth century coincided with an intensification of international rivalries that led most world powers to tighten their alliances and alignments in an effort to strengthen their positions. Although it was not aligned with any power bloc, the United States felt the impact of increased world tensions because it had acquired overseas possessions in the Spanish-American War and because it needed new markets and raw materials for its expanding industrial economy.[11]

To protect its new interests, and backed by a growing economy, the United States expanded its peacetime military strength. The War and Navy Departments created the Joint Army and Navy Board (later called the Joint Board), in 1903 to address coordination requirements for this larger, globally postured military, and to address the joint operations failures in the Spanish-American War.[12] The primary purpose of the Joint Board was to conduct joint planning between the two military arms. Indeed, upon recommendation by the Army Chief of Staff the board developed the historic "Color

[11] James L. Yarrison, "The U.S. Army in the Root Reform Era, 1899 – 1917" (U.S. Army Center of Military History, 3 May 2011), http://www.history.army.mil/documents/1901/Root-Ovr.htm (accessed February 11, 2013).

[12] Louis Morton, "War Plan Orange: Evolution of a Strategy," *World Politics* 11, no. 2 (January, 1959): 221; and John Norton Moore and Robert F. Turner, "The Legal Structure of Defense Organization," memorandum prepared for the President's Blue Ribbon Commission on Defense Management, January 15, 1986, 12.

Plans," as preparation for war scenarios against a number of potential color-coded adversaries.[13] However, since the board had no authority to compel agreement, much less action, it was largely ineffective as a coordinating body through WWI. According to the Joint Staff, prior to and during WWI, "the Joint Board accomplished little; its charter gave it no actual authority to enforce its decisions…As a result, the Joint Board had little or no impact on the conduct of the First World War."[14] The Joint Board was reorganized in 1919 and given marginal additional responsibilities (i.e., the ability to nominate plans for itself to develop). It continued to provide a forum for discussion of national military strategy, notably in preparation for war in the Pacific, but it never gained any level of directive authority and failed to resolve key strategy disputes between the Services (such as the relative importance of defending the Philippines and Guam).

Despite these planning and coordination failures, the Joint Board did play an important role in describing Service purposes, joint operations, and the distinction between Army and Navy air power roles. In 1927, the Joint Board published *Joint Action of The Army and The Navy*, a cooperative agreement between the Secretary of War and Secretary of the Navy that set forth some basic propositions for joint operations and delineation of missions:

> The Army performs functions that normally pertain to land operations; the Navy performs functions that normally pertain to sea operations. Land and sea operations each include air operations over those elements…The functions of the Army and Navy overlap in coastal operations and in joint overseas operations...
>
> The general functions of the Marine Corps are, as an adjunct of the Navy, to provide and maintain forces:

[13] Morton, 222.
[14] Joint Chiefs of Staff, "Origin of Joint Concepts."

(a) For land operations in support of the fleet for initial seizure and defense of advanced bases and for such limited auxiliary land operations as are essential to the prosecution of the naval campaign
(b) For emergency service in time of peace for protection of the interests of the United States in foreign countries
(c) For Marine detachments on vessels of the fleet and for interior protection of naval shore stations

As an adjunct of the Army, its general functions require the Marine Corps
(a) To perform such duties on land as the President may direct.[15]

*Joint Action of the Army and the Navy* also described the command and control of joint operations in words that mirror current definitions of unity of command; combatant command; operational, tactical, and administrative control; and supported and supporting command relationships. Importantly, the document also described the purpose and procedures for minimizing duplication, particularly with regard to the development of aircraft. However, even though *Joint Action of the Army and the Navy* was well written, the lack of any single authority over the Services below the President assured that friction and competition for missions between the Army and Navy would continue.

While the Joint Board was not very effective in compelling joint cooperation, the takeaway points from this discussion are that its very existence was new to history, that it set the conditions for future joint cooperation in the form of the Joint Chiefs of Staff, and that it shaped future discussions about Service organization and mission delineation. The Joint Board was eventually replaced in 1942 by the Joint Chiefs of Staff and formally disbanded in 1947.[16] A key impact of the Joint Board was to shape and coordinate the division of labor among the Services' efforts to develop and employ aircraft.

[15] The Joint Board, *Joint Action of the Army and the Navy* (Washington, DC: The Joint Board, 1927), 1 – 3.

[16] Joint Chiefs of Staff, "Origin of Joint Concepts."

The U.S. military was initially slow to develop aviation but that changed following its entry into WWI, where it found itself far behind other militaries. Military aviation advanced rapidly through the remainder of the period, leading to both unification efforts, and to separation efforts, as in the struggle for an independent Air Force. At the direction of President Theodore Roosevelt, the Army established an aviation program in 1907 and purchased its first Wright Flyer in 1909.[17] Initially, the roles of aviation were viewed as being similar to those of balloons in the civil war—observation and artillery spotting. However, other missions developed rapidly, with the first live bomb demonstration by an American airplane in 1911, followed by the addition of machine guns to airplanes in 1912.[18] Around the same time, Curtiss demonstration pilots took off from and then landed on platforms mounted on ships (the USS *Birmingham* and the USS *Pensylvania*), and then proved the validity of seaplane operations.[19] Thus was born Naval aviation. This was followed shortly and, to a lesser extent, by Marine Corps aviation.

The development of aviation by both the Army and the Navy and their rapid expansion during and after WWI ignited debate on roles and missions boundaries and spurred joint efforts to deconflict procurement efforts, training, and operations. The Aeronautical Board, a joint Army and Navy board initially created in 1916 to develop lighter than air policy, saw its charter expanded to look at "the whole subject of local cooperation of naval and military forces in time of war and preparation for war."[20] ("Military" was a synonym for "Army" at that time.) The board concluded in 1917 that

[17] Ibid., 2.
[18] Ibid., 4 - 5.
[19] Ibid., 6.
[20] Adrian O. Van Wyen, *The Aeronautical Board: 1916 – 1947* (Washington, DC: Director of Naval History, 1947), 1-3, quoted in Trest, 7.

"while the operations of the aeronautical service of the Navy will be principally over the water, and those of the Army principally over the land, it may be said that a war with a first class power will find the two services constantly operating together."[21] Thus, the board recommended a joint developmental approach rather than separate approaches. The board saw the mission overlap between the Services as largely occurring in coastal defense, with Naval aviation in the lead defense prior to invasion, shifting to Army aviation lead after invasion.[22] Operational experience in WWI exposed a much larger array of aviation missions than had previously been acknowledged, driving the United States to greatly expand military aviation, and thus to increase its focus on defining roles and missions of the Services.

In the spring of 1917, U.S. Army Major (later Brigadier General) William Mitchell, the ranking U.S. Army aviator in Europe, visited Major General Hugh Trenchard, commander of Great Britain's Royal Flying Corps in France to observe British flying operations. From Trenchard, Mitchell learned the value of concentrating tactical air forces under one commander who could mass them and direct them to best achieve tactical objectives. Following this engagement, Mitchell developed and proposed a plan for use of aviation in support of the American Expeditionary Force under General Pershing. This plan called for tactical aviation units attached directly to field armies to perform observation, artillery spotting, air defense and ground attack. It also provided for a separate grouping of bombers and pursuit aircraft dedicated to strategic bombardment. A key component of the plan was that defeat of the enemy's air forces needed to be prioritized ahead of other missions. Mitchell eventually convinced Pershing to adopt his

[21] Board of Army and Navy officers' report relative to development of aeronautical service, to Secretary of the Navy, March 12, 1917, AFHRA 248.211-76F, quoted in Trest, 7.

[22] Trest, 7.

organizational plan.[23] In September 1918, Colonel Mitchell had the chance to put his concepts to work. He was placed in charge of the entire air operation to support the U.S. First Army's offensive against the St. Mihel salient. British, French, and Italian aviation units joined the team and Mitchell commanded a combined force of 1,500 aircraft over the course of the four-day battle. The overall offensive was a success and General Pershing lauded the Air Service efforts.[24] Thus, within the Army, aviation roles, missions, and doctrine developed rapidly during WWI. Meanwhile, the demonstrated success of strategic, or reserve, air forces not tied directly to lower echelon Army units set the conditions for fierce internal and often public debate that persisted for the next three decades, eventually resulting in an independent Air Force.

Besides seeking independence from the Army, one theme of some influential Army aviators was particularly contentious in framing organization discussions. This theme was that an independent, unified Air Force should control virtually all military aviation, to include that launched from aircraft carriers. Navy aviators did not agree with their Army counterparts and strongly resisted such efforts. For example, Rear Admiral William Moffett, director of the Naval Aviation Service and then Chief of the Naval Department's Bureau of Aeronautics in the early 1920s, felt that "naval men, including naval aviators, trained to the habits, requirements and customs of the sea" could best contribute to the development of naval aviation.[25] Additionally, Secretary of the Navy Edwin Denby stated in 1924 that, "there seems to me to be no more reason for pooling appropriations for Fleet and Shore Aviation than there is for pooling appropriations for

[23] Ibid., 12 - 14.
[24] Ibid., 17.
[25] Ibid., 32.

battleships and forts."[26] The Navy thus established a position that it maintained and reaffirmed for the rest of the period, in opposition to many Army aviators' push for unification of air power.

Between the wars, a large number of boards, study groups, committees, and commissions examined the organization and distribution of functions among the Services, sometimes arriving at opposite conclusions. A striking example is the Congressional Lampert Committee and the Morrow Board established by President Coolidge. Both groups studied similar material and received testimony from the same key people. Both groups concluded their work at the end of 1925, within weeks of each other. The Lampert Committee supported a unified, independent air force (including naval aviation) and a single department of defense to coordinate Service activities. The Morrow Board recommended a more measured approach, strengthening aviation within the Army in an Air Corps, and in the Navy by providing stronger aviation representation at the top. The Morrow Board recommendation was more favorable to President Coolidge politically as it essentially discounted public charges of poor Presidential leadership with regards to military aviation made by General Mitchell. General Mitchell's court martial for insubordination began at the end of 1925, wrapping up in early 1926. President Coolidge's opinion and the Morrow Board's recommendations held sway as Congress passed the Air Corps Act in 1926.[27]

When the United States abruptly entered WWII following the attack at Pearl Harbor, Congress quickly passed legislation authorizing the President to reorganize the Armed Forces at his discretion for the duration of the war. President Franklin Roosevelt

[26] Letter, Secretary of the Navy to the Secretary of War, Subj: Military Aviation Appropriations, Sep 28, 1924, AFHRA 145.93-101, quoted in Trest, 42.

[27] Trest, 46 – 47.

acted on this authority and passed an executive order on February 28, 1942 that effectively created a separate Air Force within the Army.[28] President Roosevelt also made substantial changes in the command and control of the Armed Forces by establishing a Joint Chiefs of Staff to provide centralized direction of the activities of the Army, Navy, and Army Air Forces. This major organizational change was driven in part by the need to allow efficient meshing with British Army, Navy, and Air Force counterparts who had operated under a centralized command structure since 1923. The U.S. and British chiefs of staff collectively referred to themselves as the Combined Chiefs of Staff (CCS).[29] President Roosevelt completed the creation of the Joint Chiefs of Staff with the appointment of Admiral William Leahy as Chief of Staff in July 1942.[30]

Over the course of WWII, the Joint Chiefs of Staff (JCS) absorbed the planning responsibilities of the Joint Board (it had to do so in order to be effective in its meetings with the British chiefs). The JCS also functioned as a high command, providing centralized guidance to operational commanders in the field. The Allies coined the term "Combined" to refer to operations with more than one country involved and appointed single commanders over all Allied forces from all Services in a particular theater or subdivision of a theater to provide unity of command. For example, General Eisenhower was the Supreme Commander for the invasion of Europe. He received his instructions from the CCS through U.S. Army Chief of Staff General George Marshall. In the Pacific, command relationships were a bit more complicated, due to distrust of unified

[28] John Norton Moore and Robert F. Turner, "The Legal Structure of Defense Organization," memorandum prepared for the President's Blue Ribbon Commission on Defense Management, January 15, 1986, 13.

[29] Steven L. Rearden, *Council of War: A History of the Joint Chiefs of Staff, 1942 – 1991* (College Station, TX: Texas A&M University Press, 2012), 1 - 2.

[30] Ibid., 7.

command by Chief of Naval Operations Admiral King. After a brief and unsuccessful attempt at a combined Australian-British-Dutch-American Command (ABDACOM), the JCS opted for a Southwest Pacific Area command under General Douglas MacArthur (including U.S. land, sea, and air forces, plus some allied forces) and a Pacific Ocean Area command under Admiral Chester Nimitz, consisting primarily of Navy and Marine Corps forces. General MacArthur reported to General Marshall, while Admiral Nimitz reported to Admiral King. In 1944, Twentieth Air Force was created as a separate force in the Pacific, reporting directly to the Army Air Force member of the JCS, General Henry "Hap" Arnold.[31] While providing a more unified version of command than had ever existed in U.S. history, the JCS was still a collaborative group, frequently divided in its opinions. Those divisions tended to fall along a seam between the Army and Army Air Forces on one side and the Navy and Marine Corps on the other. There was frequent infighting, and the Royal Air Force' Sir John Slessor remarked in his autobiography, "the violence of inter-Service rivalry in the United States in those days had to be seen to be believed and was an appreciable handicap to their war effort."[32] The JCS relied on consensus or else on the President to adjudicate split decisions.[33]

As history played out, the United States and its allies ultimately dominated in WWII, dictating the terms of surrender to Germany and Japan. However, that victory appears in hindsight to have occurred somewhat in spite of the organizational structure of the JCS and the Armed Forces rather than because of it. Personalities matter, of course, and the relationships between Admiral King, General Marshall, and General Arnold

[31] Ibid., 30.

[32] John Slessor, *The Central Blue: The Autobiography of Sir John Slessor, Marshal of the RAF* (New York: Praeger, 1957), 494, quoted in Rearden, 3.

[33] Rearden, 8.

played a role in the organizational friction, as did the history of distrust engendered by the 20-year struggle for Air Force independence. Nonetheless, the structure that President Roosevelt created in 1942 was certainly more effective than the one that existed before the war. President Roosevelt's structure would be used as a starting point for formal, legislative reorganization of the Armed Forces after the war.

Beginning in 1944, both Congress and the Executive Branch began to consider the future of the Armed Forces. It was apparent to all that the nation could not afford to allow the military to return to its pre-war size and organization. However, many of President Roosevelt's reforms had taken place under temporary war-time authorization. A House Select Committee held hearings on a "Proposal to Establish a Single Department of Armed Forces" beginning in March 1944.[34] Twenty-nine influential military and civilian leaders testified before the committee, including Secretary of War Henry Stimson and soon-to-be Secretary of the Navy James Forrestal, as well as senior officers representing the Army, Navy, their air components, and the Marine Corps. Army and War Department testimony, including the Army Air Forces, recommended creation of an independent Air Force and unification of the military Services under one Department of the Armed Forces. Navy testimony, including Naval Aviation and Marines, recommended maintaining the existing Services and dual department structure, but simply to formalize the existence of the JCS. None of the witnesses disagreed with the necessity for unification of military operations in the field.[35]

The JCS appointed an ad hoc committee to begin looking at this problem in 1943. In May, 1944, they appointed a Special Joint Chiefs of Staff Committee on

[34] House Select Committee On Post-War Military Policy, *Proposal to Establish a Single Department of the Armed Forces: Hearings Pursuant to H.R. 465, Part 1,* 78th Cong., 2nd sess., 1944.
[35] Ibid.

Reorganization of National Defense, while the House Committee was still ongoing. Chaired by retired Admiral James Richardson, this JCS committee was tasked to determine the optimum organization of the Armed Forces for the effective conduct of, and efficient preparation for war. It was specifically tasked to look at three options, including the current two-department structure, a three-department structure with a separate Department of the Air Force, and a one-department structure.[36] The committee completed its report the day before President Roosevelt died in April 1945. It recommended a one-department structure with a single Commander of the Armed Forces reporting to a Secretary of War. The commander would also act as Chief of Staff to the President.[37] Admiral Richardson filed a minority report disagreeing with the conclusions. Meanwhile, the Chairman of the Senate Naval Affairs Committee suggested to Secretary of the Navy James Forrestal that he develop alternatives to the proposed organization. Forrestal concurred and asked Ferdinand Eberstadt, a former senior civilian in the Naval Department, to lead a study.[38] Eberstadt delivered his report to Forrestal on September 25, 1945. Forrestal, in turn, forwarded the report to the Senate Naval Affairs Committee. Eberstadt's recommended solution contained most of the elements that ultimately made their way into the National Security Act of 1947, including: three Cabinet-level military Departments; Naval aviation remains with the Navy; some Army aviation "peculiar to its needs" remains with the Army; maintenance of the Joint Chiefs of Staff dual-hatted as

[36] Joint Chiefs of Staff, "Joint Chiefs of Staff Paper, Reorganization of National Defense," (Joint Chiefs of Staff, May 9, 1944), Enclosure to Letter to the Secretary of War and the Secretary of the Navy, May 19, 1944, published in House Committee, *Proposal to Establish a Single Department of the Armed Forces*, 143.

[37] Report of the Joint Chiefs of Staff Special Committee for Reorganization of National Defense, April 1945, extract published in Herman S. Wolk, *The Struggle for Air Force Independence, 1943 – 1947* (Washington, DC: The Air Force History and Museums Program, 1997), 274.

[38] James H. Kurtz with John H. "Scot" Crerar, *Military Roles and Missions: Past Revisions and Future Prospects*, IDA Paper P-4411 (Alexandria, VA: Institute for Defense Analyses, March 2009), 8.

Service chiefs; creation of a National Security Council; and creation of a Central Intelligence Agency.[39] Notably, Eberstadt's recommendations did not include a separate Secretary of Defense.

In 1946, President Truman wrote a letter settling four sticking points that the two military Departments could not resolve. His decision, which he advocated for as a final solution, stated that:

> 1. SINGLE MILITARY DEPARTMENT. There should be one Department of National Defense. It would be under the control of a civilian who would be a member of the cabinet. Each of the services would be headed by a civilian with the title of "Secretary." These secretaries would be charged with the internal administration within their own services. They would not be members of the cabinet....
> 2. THREE COORDINATE SERVICES. There should be three coordinate services—the Army, Navy and Air Force....
> 3. AVIATION. The Air Force shall have the responsibility for the development, procurement, maintenance and operation of the military air resources of the United States with the following exceptions, in which responsibility must be vested in the Navy:
>  (1) Ship, carrier, and water-based aircraft essential to Naval operations, and aircraft of the United States Marine Corps.
>  (2) Land-type aircraft necessary for essential internal administration and for air transport over routes of sole interest to Naval forces and where the requirements cannot be met by normal air transport facilities.
>  (3) Land-type aircraft necessary for the training of personnel for the aforementioned purposes.
>
> Land-based planes for Naval reconnaissance, antisubmarine warfare, and protection of shipping can and should be manned by Air Force personnel. If the three services are to work as a team there must be close cooperation with interchange of personnel and special training for specific duties.
>
> Within its proper sphere of operation, Naval Aviation must not be restricted but must be given every opportunity to develop its maximum usefulness.
> 4. UNITED STATES MARINE CORPS. There should be maintained as a constituent part of the Naval service a balanced Fleet Marine Force

[39] Ferdinand Eberstadt, *Unification of the War and Navy Departments And Postwar Organization for National Security: Report to Hon. James Forrestal, Secretary of the Navy*, September 25, 1945, printed for the use of the Senate Committee on Naval Affairs, 79th Cong., 1st Sess. (Washington, DC: Government Printing Office, October 22, 1945), 6 - 14.

including its supporting air component to perform the following functions:

(1) Service with the Fleet in the seizure or defense of Advanced Naval Bases or for the conduct of such limited land operations as are essential to the prosecution of a Naval campaign.
(2) To continue the development of those aspects of amphibious operations which pertain to the tactics, technique [sic], and equipment employed by the landing forces.
(3) To provide detachments and organizations for service on armed vessels of the Navy.
(4) To provide security detachments for protection of Naval property at naval stations and bases.[40]

In January of 1947, the Secretary of War and Secretary of the Navy informed President Truman that they had mutually agreed upon a structure for the Armed Forces. The specific organization that they agreed upon was the same as that determined by the President.[41] Thus, with the President and both military departments in agreement, the way forward for legislative action became much easier. Also assisting the process was the fact that Congress consolidated the separate Committees on Military Affairs and Committees on Naval Affairs in both the House and the Senate into a single Armed Services Committee in each chamber.[42] In July of 1947, President Truman signed the National Security Act (NSA) into law and simultaneously issued an executive order dictating the "assignment of primary functions and responsibilities of the three armed services" (with the Marine Corps considered a component of the Navy).[43] The NSA created a National Military Establishment under a single Secretary of Defense (Forrestal)

[40] President Harry S. Truman, Letter to Secretary of War Robert Patterson and Secretary of the Navy James Forrestal, published in Alice C. Cole, Alfred Goldberg, Samuel A. Tucker, and Rudolph A. Winnaker, eds., *The Department of Defense: Documents on Establishment and Organization, 1944 – 1978* (Washington, DC: Office of the Secretary of Defense Historical Office, 1979), 26 - 28. Text constitutes a paraphrasing of the original by Kurtz with Crerar, 11 - 12.

[41] Kurtz with Crerar, 12.

[42] Kurtz with Crerar, 12 – 13.

[43] Presidential Executive Order 9877, published in Alice C. Cole, Alfred Goldberg, Samuel A. Tucker, and Rudolph A. Winnaker, eds., *The Department of Defense: Documents on Establishment and Organization, 1944 – 1978* (Washington, DC: Office of the Secretary of Defense Historical Office, 1979), 267.

with a small staff and limited powers. It also established the Air Force as a separate Service under a new Cabinet-level Department of the Air Force in parallel with the Cabinet-level Department of the Army and Department of the Navy. It also authorized the organization of the Joint Chiefs of Staff with a 100-person staff but no overall military Chief of Staff.

### Period Three: 1947 - Present

Period Three begins in 1947, following the signing of the NSA, and runs to the present. This period saw the beginning and ending of the Cold War, as well as a number of "hot" conflicts involving the United States. Three relatively significant changes to the NSA were made during this period, in 1949, 1958, and 1986. These changes were preceded and followed by many debates, studies, and commissions on the organization of the Armed Forces, several of which will be discussed.

Unfortunately, the signing of the NSA and of Executive Order 9877 did not end inter-Service conflict over roles and missions. Among other issues, the Navy and the Air Force disagreed over the Navy's right to procure "strategic" aircraft and atomic weapons. The newly appointed Secretary of Defense James Forrestal called two conferences in 1948 to resolve these differences. The first conference occurred in Key West, Florida, in March 1948, and addressed the Navy's right to procure strategic aircraft and thus to justify construction of a super carrier. The second occurred in Newport, Rhode Island in August 1948 and addressed atomic weapons.[44] Forrestal wrote a memorandum to document the decisions made during these conferences, now known as the Key West Agreement of 1948, but formally titled "Functions of the Armed Forces and the Joint

[44] Kurtz with Crerar, 19.

Chiefs of Staff."[45] This paper has been maintained and refreshed over the years and is now codified as Department of Defense Directive (DODD) 5100.01.

Forrestal also found that his position as Secretary of Defense was extremely difficult to execute with the very small staff and limited authority given him by the NSA. In 1948, Congress authorized a commission to study the organization of the entire Executive Branch of the government, headed up by former President Herbert Hoover. Ferdinand Eberstadt led a task force under this Commission to once again study the National Security Organization. The Eberstadt Task Force and the Hoover Commission recommended strengthening the powers of the Secretary of Defense, and President Truman strongly supported this recommendation.[46] Simultaneously, newly appointed Secretary of Defense Louis Johnson initiated an internal squabble known as the "Revolt of the Admirals" by cancelling the Navy's super carrier while continuing the Air Force's B-36 program.[47] Congress ultimately passed a significant update to the NSA in August of 1949 that: changed the name of the National Military Establishment to the Department of Defense, subordinated the three military departments below the DoD (removed them from Cabinet status), and added a Deputy Secretary of Defense and a Chairman of the Joint Chiefs of Staff. Importantly for this thesis, Congress also added a clause that prohibits the President or Secretary of Defense from transferring or abolishing the functions of the four Services (in order to specifically protect naval aviation and the

[45] James Forrestal, "Functions of the Armed Forces and the Joint Chiefs of Staff" (Washington, DC: Secretary of Defense, April 21, 1948).

[46] *Task Force Report on National Security Organization*, prepared for the Commission on Organization of the Executive Branch of the Government (Washington, DC: Government Printing Office, January, 1949).

[47] Kurtz with Crerar, 20 - 21.

Marine Corps from unilateral action by the Executive Branch). This clause remains in place today, and is a significant barrier to reorganization through purely executive action.

In 1958, Congress made another significant change to the NSA, at President Eisenhower's request. The DoD Reorganization Act of 1958 authorized the President to create unified and specified combatant commands that report directly to the Secretary of Defense rather than through the Service Chiefs.[48] In lobbying Congress for the change, President Eisenhower stated, "Separate ground, sea, and air warfare is gone forever. If ever again we should be involved in war, we will fight it in all elements, with all services, as one single concentrated effort."[49] Eisenhower had also asked Congress to change the law so as to provide a single lump-sum budget for DoD every year and to require only the Secretary of Defense to speak to Congress so as to promote unity of effort within the Department. However, Congress denied both of these requests and continued to exercise its option to hear testimony from all the Services and Departments separately on the budget and other matters.[50] The addition of the combatant commands in 1958 was the last significant change to DoD organization for almost 30 years.

In 1982, CJCS General David Jones wrote, "despite major changes in the world…we have had 24 years—and in many ways, 35 years—without fundamental revisions in the joint system, a system which in effect represents arrangements developed in a patchwork way during World War II."[51] His paper and subsequent testimony to

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[48] Ibid., 22 - 23.

[49] President Dwight D. Eisehnhower, Message to Congress, April 3, 1958, quoted in Eilon and Lyon, 12.

[50] Eilon and Lyon, 13.

[51] David C. Jones, *Why the Joint Chiefs of Staff Must Change* (alternate title: *The Joint System: Preparing to Meet the Challenges of the 1980's And Beyond*), (Washington, DC: Joint Chiefs of Staff, 1982), 4. Note: This paper was written by General Jones while he was Chairman of the Joint Chiefs of Staff. A note on the front of the paper states that a slightly abridged version of it will appear in the February version of *Directors and Boards* magazine.

Congress led to a four-year Congressional effort to significantly reform the DoD. Members of the House and the Senate from both parties led the charge to correct flaws in the DoD structure highlighted by General Jones and reinforced in a number of joint operations failures, including the attempt to rescue hostages in Iran, the bombing of the Marine Corps barracks in Beirut, and the invasion of Grenada. Most of the Joint Chiefs of Staff, who were also Service Chiefs and saw their own power and authority under attack, strongly resisted reform. Nonetheless, after a bitter fight and much political maneuvering, President Reagan signed the Goldwater-Nichols Act (GNA) into law in 1986. The GNA accomplished three broad objectives. First, it empowered the CJCS by making him the principal military advisor to the President and Secretary of Defense, giving him exclusive direction over the Joint Staff, and providing a Vice Chairman. Second, the GNA increased the power of the combatant commanders by increasing their authorities and decreasing those of the Service Chiefs. Finally, GNA sought to increase jointness and efficiency among the Services through acquisition reform and mandatory joint education requirements.[52] GNA's framers did not consider it to be the final step in reforming DoD, as evidenced by the GNA requirement for the CJCS and Secretary of Defense to provide recommendations on roles and missions to Congress every three years.

In 1989, Admiral William Crowe, CJCS, completed the first GNA-directed report on roles and missions. He completed his report just prior to retiring and gave it to the next CJCS, General Colin Powell for final action. Among other recommendations, Admiral Crowe proposed that the functions of the Services needed to be more clearly stated and that close air support (CAS) should be a primary function of all four Services.

[52] Eilon and Lyon, 20.

His conclusion regarding CAS was based on the fact that the Army effectively conducts CAS with its armed helicopters, but does not call it CAS. He also recommended that space functions needed better alignment, with the Air Force in the lead for overall space functions and the other Services conducting only those space activities that directly contribute to their primary operating domains.[53] General Powell forwarded Admiral Crowe's report to Secretary of Defense Dick Cheney with a separate cover letter recommending against changing the CAS assignment. The issue of CAS was already undergoing separate Congressional study, and the ultimate outcome was that CAS was never assigned as a primary function to the Army.[54] The other recommended changes were also not immediately addressed in formal DoD directives, since DODD 5100.01 was not updated until December 2010.

The combined impetus of the ending of the Cold War and the conduct of the first Gulf War in 1990 – 91 compelled rethinking of the entire U.S. military structure. Congress once again began to look for areas of unnecessary redundancy in the roles and missions of the Services. In mid-1992, Senate Armed Services Committee Chairman, Senator Sam Nunn exerted additional pressure on the upcoming CJCS review of roles and missions. He spoke of vast duplication among the Services in aviation and air defense missions, space operations, intelligence, medical, chaplain, and legal support. Congress enacted legislation requiring the next CJCS report to be delivered to Congress, rather than just the Secretary of Defense, and mandated a number of specific studies in the areas listed above as well as the potential to consolidate Service war and staff

[53] William J. Crowe, Jr., "Report on the Roles and Functions of the Armed Forces," (Washington, DC: Joint Chiefs of Staff, September 28, 1989).

[54] As can be seen in the current version of DODD 5100.01, updated in December, 2010.

colleges.[55] Presidential candidate Bill Clinton agreed with Senator Nunn and stated in an August 1992 speech that, if elected, he would "order the Pentagon to convene a similar meeting [to the Key West conference] to hammer out a new understanding about consolidating and coordinating military roles and missions in the 1990's and beyond."[56]

General Powell provided his report to Congress through Secretary of Defense Les Aspin in February 1993. His primary recommendation was to assign all U.S.-based general purpose forces to a joint combatant command which would be responsible for training and deploying joint forces. Congress and the Secretary of Defense accepted this recommendation, which ultimately resulted in the creation of U.S. Joint Forces Command (originally U.S. Atlantic Command).[57] Additionally, General Powell argued persuasively against the "Four Air Forces" perception, and strongly urged maintaining aviation within all the Services.[58] He also advocated for maintaining a separate Marine Corps, as its capabilities of amphibious warfare and high readiness complement Army capabilities.[59] In both these previous cases, General Powell noted that the Service functions were codified in law, and thus not subject to change without Congressional action. General Powell also noted a number of efforts to unify aviation efforts among the Services, including a greater degree of cooperation in fixed and rotary wing pilot training and the consolidation of common aircraft.[60] Finally, General Powell addressed construction engineers, chaplains, and the legal corps. In all three cases, he found that Service

[55] Kurtz with Crerar, 32 - 33.

[56] William J. Clinton, Speech in Los Angeles, August 13, 1992, cited in Michael R. Gordon, "Report by Powell Challenges Calls to Revise Military," *New York Times*, December 31, 1992.

[57] Kurtz with Crerar, 34.

[58] Colin L. Powell, *Chairman of the Joint Chiefs of Staff Report on the Roles, Missions, and Functions of the Armed Forces of the United States* (Washington, DC: Joint Chiefs of Staff, February, 1993), III-10 – III-12

[59] Ibid., III-35 – III-37.

[60] Ibid., III-18 – III-31.

operational differences overcame any benefits that might be gained through unification of these functions.[61]

Congress was unsatisfied with General Powell's 1993 report. In fact, Congressman Ron Dellums called it "tinkering at the margins of organization."[62] Congress thus directed a major "independent" review of roles and missions, authorizing the creation of the Commission on Roles and Missions of the Armed Forces, or CORM. This commission was led by John P. White, the upcoming Deputy Secretary of Defense.[63] The CORM issued its report in May 1995. It chose not to focus on specific roles and functions within the Services, calling that approach an outdated one.[64] Instead, the CORM proposed that the focus should be on ensuring that Services effectively develop capabilities needed by the combatant commands to execute their mission.[65] The CORM proposed reform in three broad categories: strengthening unified operations; focusing DoD infrastructure to support those unified operations; and improving DoD decision-making.[66] Ultimately, the CORM's recommendations did not lead to any significant changes in the organization or functions of the Services, though they did push the DoD's planning processes to use a capability-based focus.[67]

Following the CORM, and for a variety of reasons, no additional CJCS or Secretary of Defense reports on roles and missions were issued until 2009, other than a one-paragraph addition to the 2006 Quadrennial Defense Review (QDR) by General Pace noting that he concurred with its finding that roles and missions are fundamentally

[61] Ibid., xix – xx.
[62] Ron Dellums, U.S. Congressman, 1993, cited in Kurtz with Crerar, 38.
[63] Kurtz with Crerar, 38.
[64] Directions for Defense: Report of the Commission on Roles and Missions of the Armed Forces (Washington, DC: Government Printing Office, 1995), ES-3.
[65] Ibid.
[66] Ibid., 1-9 – 1-10.
[67] Kurtz with Crerar, 39.

sound.[68] Congress then added a requirement to the National Defense Authorization Act (NDAA) for Fiscal Year 2008 directing the CJCS and Secretary of Defense to conduct a Quadrennial Roles and Missions Review (QRM) in the off years between QDRs. This law changed Title 10. Congressman Ike Skelton stated the intent of the law during a House Armed Services Committee hearing on roles and missions in 2007:

> We require the Secretary of Defense to review the roles and missions of the Department every four years in the down time between Quadrennial Defense Reviews. We recommend that the Secretary determine the core competencies agencies and military services and defense agencies currently offer in fulfilling these missions; ensure that they develop the core competencies that are currently lacking; and generate some capabilities that are not related to core competencies.[69]

DoD conducted the first required review under this law in 2008 and issued a report in 2009. The report states that it sought the following objectives:

- Increase synergy across the Department's Components
- Improve the effectiveness of joint and interagency operations
- Ensure the Department continues to efficiently invest the Nation's defense resources to meet the asymmetric challenges of the 21st Century[70]

Thus, the QRM reiterated the common military reform themes of effectiveness and efficiency. A main effort of this inaugural QRM was to set up a hierarchical framework for roles and missions using the Congressionally-dictated terminology (core mission areas and core competencies). The established framework shows how the

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[68] Peter Pace, "Chairman's Assessment of the 2006 Quadrennial Defense Review," *Quadrennial Defense Review Report* (Washington, DC: Department of Defense, February 6, 2006), A-7.

[69] House Committee on Armed Services, *Organizing the Roles, Missions, and Requirements of the Department of Defense, Hearing Before the Committee on Armed Services*, 110th Cong., 1st Sess., June 20, 2007, 2. (Interestingly, this same quote can be found in Kurtz with Crerar on page 43, except that the words "generate some" are replaced with the word "jettison," which seems to fit better with the tone of the discussion. Kurtz with Crerar reference a page on the HASC website that is no longer active. It appears that a transcription error occurred in one of the two sources. In any case, the primary referenced document in this thesis comes from the Government Printing Office and is the source of record.)

[70] Department of Defense, *Quadrennial Roles and Missions Review Report* (Washington, DC: Department of Defense, January, 2009), 1.

current functions and capabilities of the Services and the demand of the combatant commands are aligned to meet those core mission areas and core competencies and how those in turn support the national strategy.[71] Finally, the QRM identified four "focus areas" for specific review: irregular warfare, cyberspace, intratheater airlift, and unmanned aircraft systems. Note that two of these four areas cover aviation, and three cover connective domains—reinforcing the proposition in Chapter 2 that connective domains are drivers for unification. In any case, at the time, each of these focus areas was addressed as being important and requiring integration, but not requiring any specification of Service roles.[72] In the final analysis, the 2009 QRM laid out yet another framework for DoD to conduct deep internal review and recommend reform in the future, but did not itself recommend any major reform. Specifically, it did not eliminate any redundancy of Service functions. The next QRM was due to Congress in 2012, but has not yet been released.

## Conclusion

In conclusion, the current organization of the Armed Forces is the result of a relatively low number of significant changes over 220 years of national history. The original structure of a highly independent Army under the Department of War and a highly independent Navy plus its attached Marine Corps under the Department of the Navy lasted for 150 years. Changing conditions in the internal and external environment, combined with technology advances that thrust military operations into the air, followed later by space and cyberspace, resulted in the United States dramatically increasing the size, basing, and nature of its military forces. These changing conditions also required

[71] Ibid., 3 – 7.
[72] Ibid., 9 - 29.

major organizational changes during WWII to increase unification among the Services. These changes were formalized and extended in the NSA of 1947, followed by a historic delineation of Service functions in the Key West agreement, a paper which has evolved into today's DODD 5100.01. The NSA saw relatively significant modification in 1949, 1958, and 1986, with the result that the Secretary of Defense now exercises leadership of the three non-cabinet ranked military departments; there is a Chairman and Vice Chairman of the Joint Chiefs of Staff, through which communications flow between the President or Secretary of Defense and the combatant commanders, who operate separately from the Services in the employment of military forces; and joint military education programs promulgate a degree of joint understanding among mid-grade and senior officers.

Congress has frequently perceived unnecessary redundancy within DoD and repeatedly tasked DoD and independent commissions to study this issue. With the exception of the National Security Act of 1947 and the three legislative changes mentioned above, no such reviews have resulted in significant change to Armed Services organization or the distribution of functions.

Title 10 prohibits the President or Secretary of Defense from abolishing or transferring any functions that are assigned to the Services by law. Meanwhile, both law and DODD 5100.01 allow for a high degree of overlap in the common functions of the Services.

The introduction to this chapter posed the question: What events, forces, and decisions led to the current organization of the Armed Forces? This chapter has described those events, forces, and decisions. The stage is now set to develop proposals

for organizational reform, with the goals of increasing military effectiveness and efficiency, and of achieving the CJCS' concept of globally integrated operations.

# CHAPTER 4: PROPOSALS FOR A BETTER MILITARY FORCE

## Introduction

To recap, Chapter 2 of this thesis showed that greater unification of the organizations and processes of the Armed Forces could yield greater effectiveness and efficiency while enabling the concepts of globally integrated operations and mission command. Chapter 3 described the events, forces, and decisions that led to the current organization of the Armed Forces. This chapter will provide a list of criteria that should be addressed in developing any new organizational scheme, based on the history of past reform efforts. Finally, the chapter will provide a list of specific unification proposals.

## Organizational Reform Criteria

The following is a list of criteria that must be addressed in the development of organizational reform. Even if the specific reform proposals of this thesis are not adopted, this list of criteria can assist with development of alternate proposals, as it is informed by the history of reform efforts and the goal of globally integrated operations.

### *Start From a Blank Slate*

It is essential to begin thinking about reorganization from a blank slate perspective. That is, if one were to arrange the modern military forces of a brand new nation from scratch today, armed with all the knowledge of existing capabilities and lessons learned from past conflicts, unconstrained by legislative boundaries or Service preferences, and provided with the full set of capabilities currently available to the United States, what would be the ideal organization, distribution of responsibilities, and policies for management and employment of those forces? The ideal must consider national

values, such as civilian control of the military, but need not be constrained by acclimatized values, such as preference for a specific number of Services and departments or for a specific Service to execute a particular function. The resulting organization need not be nearly as complex and inflexible as the current U.S. structure, and it is likely that such a force would be much more integrated and more effective. This does not mean that such an ideal force is entirely feasible. Political hurdles and other barriers may be insurmountable, as history has shown. Still, it is important to identify the ideal force without limitation first, and then attempt to achieve as close to the ideal as possible.

### *Radical Change Is In Order*

Effective change cannot be incremental or insubstantial (though incremental steps should be taken in executing radical change where possible—see Chapter 5). The current system is the result of 65 years of tweaking the bureaucracy of the National Military Establishment of 1947. As has been shown, the system is outdated and inefficient, and inhibits globally integrated operations. The Department of Defense (DoD) must pursue radical change, albeit carefully and in a responsible manner.

### *Apply the Hedgehog Concept*

In his book, *Good to Great*, which describes how good organizations become great ones, Jim Collins borrows an example from an Isaiah Berlin essay, which itself borrowed a fragment by the Greek poet, Archilochus regarding a fox and a hedgehog. The basic concept is that the cunning fox employs many clever stratagems to catch and kill the simple hedgehog. The hedgehog always wins because it has one simple defense mechanism that it executes with perfection—curling into a ball with its spikes outward.

In the words of Archilochus (first line in quotes), Isaiah Berlin (remaining quote), and Jim Collins:

> "The fox knows many things, but the hedgehog knows one big thing." [Archilochus] Foxes pursue many ends at the same time and see the world in all its complexity. They are "scattered or diffused, moving on many levels," says Berlin, never integrating their thinking into one overall concept or unifying vision. Hedgehogs, on the other hand, simplify a complex world into a single organizing idea, a basic principle or concept that unifies and guides everything….For a hedgehog, anything that does not somehow relate to the hedgehog idea holds no relevance…Hedgehogs are not stupid…[they] see what is essential, and ignore the rest.[1]

The applicability of the Hedgehog Concept to military organizations is the importance of simplicity and focus on the primary function. To the extent possible, therefore, military organizations should be dedicated to accomplish specific missions, rather than being diluted with secondary tasks. For example, an armored brigade combat team is organized to conduct land warfare centered around the strength of the tank. The entire Army is organized to conduct land warfare and to provide all the supporting functions required to accomplish that function. Granted, single-minded simplicity is not always possible across the entire military organization. Unlike commercial enterprises, which can pick and choose what to produce, the Armed Forces cannot opt out of providing the full range of required capabilities for national security. Also, there are two converse issues that must be considered. The first is that commanders should have control over as many of the resources required to do the mission as possible. The second is the importance of building teamwork. Military forces from various functions have to be able to come together in a joint force to accomplish combat missions. The

[1] Jim Collins, *Good To Great: Why Some Companies Make the Leap…and Others Don't* (New York: Harper Collins, 2001), 90 – 91; first embedded quotation from Archilocus, Fragment 201 in *Iambi et Elegi Graeci*, vol. 1, ed. by M.L. West (Oxford, 1971); second embedded quotation from Isaiah Berlin, *The Hedgehog and the Fox* (Chicago: Elephant Paperbacks, 1993).

conventional wisdom of “train the way you will fight” suggests that these teams should be developed in a multi-functional environment.

### *Maintain the Necessary Attributes of an American Military Force*

The following attributes are Constitutional deal breakers for reform—they must exist in any American military organization:

- President is the Commander in Chief
- Congressional oversight of the development and employment of forces
- Strong civilian control of the military

### *Minimize Competing Redundancy*

Competing redundancy was addressed in Chapter 2, particularly with regard to aviation, human resources, and combat service support. Common, or apparently common, functions have been the focus of the vast majority of reform efforts over the decades. Clearly, there is an overhead cost to perform the same function in four different Services using four different sets of policy, personnel, facilities, systems, etc. Additionally, having four different development pipelines for these functions within the Services results in a need to overlay joint integration processes to bring the Services together in a joint force, and there is still a degree of residual friction to overcome.

This is not to say that all redundancy is bad. In fact, history provides many examples of healthy competition resulting in capabilities that might not otherwise have been realized. An example is the Navy’s development of the Norden Mark XV bombsight, which was much more effective than bombsights developed by the Army Air

Service, and which the Army Air Service used extensively in WWII.[2] Another example is the Navy and Marine Corps' development of amphibious warfare between WWI and WWII while the Army neglected that possibility.[3] However, redundancy should not exist by accident or because decision-makers are unable to gain required consensus. Rather, redundancy should be intentionally built in with a specific purpose that justifies the cost.

***Focus on Planning, Commanding, and Controlling, but also develop Broad Familiarity***

The primary focus on jointness is at the planning, commanding, and controlling level—and that is an appropriate *sine qua non* for modern military operations. Thus joint education is primarily given to officers in their mid to late careers who work on joint staffs and may lead joint task forces. However, if a broad familiarity of joint culture can be developed in a much larger section of the force, then that would also be helpful, particularly if it can be done at low cost. This reflects the CJCS' goal of developing jointness deeper and sooner.[4]

***Maximize Organizational Flexibility***

Organizational change is very hard, as evidenced by the relatively low level of change over the years in spite of constant pressure to change. Even if the perfect force structure were to be implemented for today's environment, that structure could well be obsolete in twenty years due to changing technology and changes in the environment (much like what happened between 1900 and 1947). Also, it is unlikely that the perfect force structure will be envisioned and created. The best way to account for both these

[2] Stephen Budianski, Air Power: The Men, Machines, and Ideas That Revolutionized War, From Kitty Hawk to Iraq (New York: Penguin Books, 2005), 173 - 174.

[3] Jon T. Hoffman, "The Roles and Missions Debate," *Marine Corps Gazette* 78, no. 12 (December, 1994), 16.

[4] Martin E. Dempsey, *Mission Command White Paper* (Washington, DC: Joint Chiefs of Staff, 3 April 2012), 3 – 4.

variables is to provide flexibility in the force structure. Where possible, Title 10 should be adjusted to allow the Secretary of Defense, with the approval of the President, to adjust the organization without returning to Congress for permission. At a more tactical level, there could be a number of modular organizational templates for units to use depending on changing mission requirements. For example, combined arms organizations with a mixture of land, air, sea, space, and/or cyber forces from multiple Services may be appropriate in-garrison at times.

***Minimize Organizational Diversity***

Lower level organizations at the same echelon should be as similar as possible, even across Services. For example, aircraft squadrons in all Services should be structured and manned as similarly as operational differences allow. Providing similar structure and function at the same echelon will improve the ability to rapidly form and reform joint forces. This is somewhat opposite to the previous recommendation for organizational flexibility. However, the concept of providing a limited number of templates in a single document for Services to choose from would help achieve both goals. Another way to ease the conflict between maximizing flexibility and minimizing diversity would be to use a modular concept for additional capabilities that can be added at low echelons.

***Total Unification Is Not Ideal***

Total unification, sometimes referred to as a "Purple Force" is probably neither feasible nor ideal. It is not feasible because it involves destruction of organizations to which many influential stakeholders have strong emotional attachments. Logical or not, history has clearly demonstrated that such influences usually prevail in stopping

otherwise logical reform proposals. A Purple Force may not be ideal because even with such a force, there would need to be stovepipes for development of specialized combat expertise. These stovepipes would probably end up looking a lot like Services within the larger Service. Additionally, it is important to maintain some degree of independence amongst the Services so that a single overall military Chief or Secretary with a particular agenda or flawed concept of operations is not allowed to be the only voice to Congress and the President. Indeed, in his minority report, retired Admiral James O. Richardson, chair of the Joint Chiefs of Staff Special Committee on Reorganization in 1945, stated that:

> I believe it unwise to give power proposed herein [i.e., in the Committee's majority report] to one Secretary and one Commander of the Armed Forces. Aside from the difficulty of finding men capable of discharging those vast duties acceptably, there is real danger that one component will be seriously affected by the decisions of one man to the detriment of the effectiveness of the Armed Forces as a whole.[5]

While Richardson's solution of maintaining separate War and Navy Departments would almost certainly be a step backward, his point that there need to be checks and balances is valid. The only question is how much unification should be sacrificed to ensure this balance.

### *Different Types of Operations Drive Different Organizations*

Many of the differences in the Services today are not simply idiosyncratic, but rather due to the differing nature of Service operations. To the extent that this statement is true, it will restrain the ability to merge policies and functions. Some examples of this issue include the fact that ships must spend months in preventive maintenance between

[5] J.O. Richardson, "Joint Chiefs of Staff Staff Special Committee for Reorganization of National Defense, Minority Report", April 1945, published in Herman S. Wolk, The *Struggle for Air Force Independence: 1943 to 1947 (*Washington, DC: The Air Force History and Museums Program, 1997), 272.

deployments, and most Army units require months-long spin-up time to train for specific missions prior to deployment. On the other hand, Air Force units are typically always at a high degree of readiness (though this concept is undergoing stress at the moment due to budget sequestration).

### *Address the risk areas for globally integrated operations*

As discussed in Chapter 2, the *Capstone Concept for Joint Operations* (CCJO) identified the following risks of pursuing globally integrated operations:

- An overemphasis on decentralization may lead to lack of coordination and inefficient use of scarce resources
- Standardization may lead to decreased diversity, flexibility, versatility, and, ultimately, effectiveness
- Elimination of redundancies may lead to operational brittleness and risk
- The emphasis on organizational flexibility may limit operational effectiveness[6]

Each of these risks are valid and apply to efforts to nearly any scheme to increase unification of the Armed Forces. While these risks need to be considered, they also need to be weighed against the possible gains to be achieved.

## Reorganization Proposals

In line with the criteria above and considering the lessons of history, the following list of recommendations provide meaningful ways to adjust Armed Forces organization to improve effectiveness and efficiency and to achieve globally integrated operations and mission command.

[6] Joint Chiefs of Staff, *Capstone Concept for Joint Operations: Joint Force 2020* (Washington, DC: Joint Chiefs of Staff, 10 September 2012), 14.

***Merge the Military Departments into the Department of Defense***

This refers only to the military Departments, which provide civilian control of the Services, and not to the Services themselves. Instead of a Secretary of the Army, Secretary of the Navy, and Secretary of the Air Force, provide an Undersecretary of Defense for Land, Maritime, and Air. This may appear in some ways to be a simple name change, as the Secretary of Defense already exercises full control and authority over the military departments, but merging the military department staffs into the same higher level organization will allow the Secretary of Defense to merge top level functions and eliminate overhead. For example, there is no need for each of the military departments to have its own legal counsel and inspector general function. In actuality, every function of the military department staffs should not be consolidated upwards into the Office of the Secretary of Defense (OSD) staff. Some Hedgehog functions, such as acquisition and comptroller, need to be shifted to the military Service staffs.

***Merge Armed Forces Personnel Policies, Systems, and Organizations***

There should only be one personnel system for the entire DoD. Currently, each Service operates its own system under broad DoD policy. This is tremendously redundant and inefficient. Additionally, the current system creates friction when members come together in joint organizations. The new system can be operated either as a unified command or as a Defense Agency under the DoD. It can also be highly civilianized. The system should provide one set of policy directives, one list of ratings (also known in the Army and Air Force as Military Operational Specialties and Air Force Specialty Codes), one method of performance evaluation, one promotion system, etc. This new organization would allow the elimination of three military personnel

commands, three enterprise database systems, and scores, if not hundreds of Service regulations and directives. It would also simplify joint staff manning functions, as they could use the same system instead of relying on a separate joint process that interacts with four Service systems. It would also eliminate low-level friction for personnel working in joint organizations and provide for a more common joint culture. Finally, the joint personnel agency or unified command will itself provide another opportunity for joint interaction while *subtracting* overhead—unlike the historical trend of adding overhead to create joint staffs.

### *Unify Recruiting and Accession Training*

While recruiting and accession are a subset of the overall personnel function, unification of these functions requires a separate discussion. Recruiting and accession programs should be unified in order to start all military members off with a baseline sense of belonging to the overall U.S. Armed Forces and a baseline common experience. This function can be organized under the same defense agency or unified command structure created in the previous recommendation. It is wasteful for multiple recruiting offices in the same location to compete over the same population. It is similarly wasteful to have multiple Reserve Officer Training Corps (ROTC) detachments at the same university, and may be wasteful to have three separate Service academies. Finally, the Services' basic training programs and many of their technical skill follow-on programs have many of the same desired outputs. All of these functions can be more efficiently provided through joint organizations, which will have the secondary benefit of improving joint understanding at two points: early in the career for the new accessions, and later in the career for the staff. Any Service-specific training in the accession programs can be

performed either as blocks of training throughout the programs or in a top-off session at the end of the program.

### *Unify Policy and Training for Combat Service Support Functions*

A large number of functions performed by the Services are not unique to their military operations. Aside from the personnel and accession functions discussed previously, this includes chaplain, legal, medical, food service, logistics, military construction, installation security, child care, and a host of others. A broad term for such activities is combat service support (CSS), though an exhaustive list of such activities does not exist. A starting point for developing this list would be to review the list of common military department functions from Department of Defense Directive 5100.01, listed in Chapter 2 of this thesis, though that list is also not exhaustive. For example, public affairs, safety and inspector general functions could also be added to the list. Also, it is acknowledged that some of these functions already have some degree of unification, or are undergoing unification efforts, notably medical and legal. Suffice it to say that there is a group of common CSS functions that currently have an unnecessarily high degree of separation and redundancy within the Services. Many of these functions are not Hedgehog issues for the Services, and thus could be seen to detract from the Service chiefs' ability to focus on developing their combat specialties.

There are a number of options for unifying CSS functions. The proposal by the Richardson Committee in the 1940s was to put CSS and other common functions, including personnel, directly under an Armed Forces Staff. The Armed Forces Staff would have replaced the Joint Chiefs of Staff, would have been commanded by a Commander of the Armed Forces, and would have exercised overall authority over all

components of the Armed Forces.[7] This is completely different from our current Joint Staff, which has very little authority over the Services and combatant commands. As mentioned previously, Admiral Richardson himself disagreed with this recommendation. Another way to get to the same goal of unifying CSS would be to create a unified command or defense agency for each or all of the common functions as described previously for the unified personnel function. A third way, and the one that is recommended, would be to assign each of the identified common functions to a Service. The Service would then be solely responsible for developing joint policy and overseeing training. For example, the Army might be assigned transportation, the Navy, safety, and so on. These functions, however, should still be manned by personnel from all the Services. Additionally, the manning documents for units below headquarters level will need to maintain current levels, except potentially for organizations at joint bases.

The advantages of unifying CSS functions are similar to those for the personnel function. Hundreds of regulatory documents, data management systems, and headquarters staff positions could be eliminated. The goal of increased efficiencies in joint basing would finally be achievable (also, building on the personnel proposal above, there could be one joint personnel office at each joint base). As with personnel, friction in joint organizations would be greatly reduced and interoperability at low echelons would be enhanced. Another way to build on this commonality of functions to increase broad-based joint culture would be to promote cross-Service assignments in these functions, which will be much easier once all Services operate under the same policies.

[7] Report of the Joint Chiefs of Staff Staff Special Committee for Reorganization of National Defense, (Washington, DC: Joint Chiefs of Staff, April 1945).

### *Unify Policy and Training for Common Aviation Functions*

As discussed in Chapter 2, there is a large amount of competing redundancy in the Services' aviation functions. The Services have worked hard over the decades to make aviation interoperable in joint operations. However, the Services each maintain significant staffs and different regulations on basic flight training and aircraft maintenance and they use different systems for tracking flying hours, training events, and maintenance records. Massive service aviation safety and mishap investigation programs have the same goals but again have duplicate staffs and operate under different policies. While it is important that the Services maintain full control over the development of their operational training and doctrine, it does not make sense to maintain separate organizations and policy for common functions. These functions should be merged into one joint organization. That organization could fall under the Air Force, or could be a separate defense agency or unified command. In either case, the organization should include personnel from all Services. Such an organization would result in reduced overall manpower and overhead for aviation functions.

## Conclusion

In conclusion, this chapter provided a list of criteria for use in developing objective DoD reform proposals. It then provided a list of proposals which meet those criteria, are informed by the history of past organizational changes, and move toward the Chairman of the Joint Chiefs of Staff's goals of globally integrated operations and mission command. The proposals also increase the effectiveness and efficiency of the Armed Forces. The common theme among the proposals is to eliminate competing

redundancy. Doing so is essentially a free way to gain large improvements in efficiency while also increasing the commonality and thus interoperability among the Services.

# CHAPTER 5: RECOMMENDATIONS

## Roadmap for Change

This chapter will describe changes that need to occur in policy and legislation. It will also provide some conditions that are critical to success, including the importance of trust and leadership, and the importance of starting small and building change incrementally and reversibly.

Changes in law and in policy are required in order to implement the proposals in Chapter 4. Title 10 currently states that the Department of the Army, the Department of the Navy, and the Department of the Air Force are "separately organized" under their respective secretaries, even though they also "operate under the authority, direction, and control of the Secretary of Defense."[1] This law would have to be changed to abolish the military Departments and turn the Service Secretaries into Undersecretaries. Additionally, the Secretary of Defense would need to be given authority over some of the "organize, train, and equip" functions of the Services in order to implement Departmental policy in the areas of personnel, combat service support, and aviation. Once enabled in law, Department of Defense (DoD) policy can be established rather quickly, assuming a detailed implementation plan is developed first.

The identification of change proposals in Chapter 4 is only the first step. A great deal of planning is required by a multitude of subject matter experts from all Services, combatant commands, and the Office of the Secretary of Defense. Fortunately, one of the military's greatest strengths is its ability to plan complex operations. The Operational

[1] Title 10, U.S. Code, Secs. 3011, 5011, and 8011.

Design process and Joint Operation Planning Process described in Joint Publication 5-0, *Joint Operation Planning*, provide an ideal way to organize a team and build a detailed implementation plan. The Operational Design concepts of "end state", "objective", and "line of effort" have direct relevance, as do many others.

Members of the planning team should be chosen based on their open-mindedness, ability to innovate and think strategically, and joint experience. Membership will also need to improve subject matter experts from each of the Services in the areas to be unified. An additional benefit of involving all stakeholders in the planning effort is that it will build consensus and ownership of the solution among the Services and combatant commands.

Trust is essential to the process. This includes trust among the Services, trust between the Services and civilian leadership, and trust between the Executive and Legislative Branches. Trust is essential within the Services because the expertise for planning and implementing effective reform lies almost exclusively within their domain. Without trust, Service members will feel obliged to undermine and resist any reform efforts and pursue parochial interests, as they did during the lead-up to the National Security Act of 1947 and the Goldwater-Nichols Act. The goal of all involved should be to determine the organization of the Armed Forces which best supports the nation, rather than that which best supports a particular Service. Without trust, and without a good understanding of what all the Services currently provide to the joint force, it is possible for individuals to perceive Service interests as equating to national interests. Fortunately, 25 years of developing personnel under the Goldwater-Nichols joint education restraints

have led to a much higher degree of trust among the Services than has ever been the case. Thus, Goldwater-Nichols may have laid the foundation for future reform.

Service Chiefs, military Secretaries, the CJCS, and the Secretary of Defense can be the most effective proponents for change, but cooperation and permission will be required from Congress. Past history shows that successful major change has almost always occurred in spite of and over the objections of some, if not all, the Service chiefs. For example, despite the fact that General Jones, CJCS, and General Meyer, Army Chief of Staff in 1982 provided much of the initial impetus for getting Goldwater-Nichols started, the Pentagon (including Secretary of Defense Weinberger and all the Chiefs of Staff after General Jones and General Meyer retired) strongly resisted the effort right up until it became law. Thus, what is now seen from within and outside DoD to have been the most effective restructuring of the Department in 40 years was perceived at the time as an evil to be avoided. Every other organizational change throughout DoD history faced strong opponents within the military, yet each has made the force incrementally better. Other choices that might have led to an even more effective organization were not made because political realities and frequently short-sighted and parochial Service views put them beyond reach.

If military and civilian DoD leaders can make a rational case for change that maintains or strengthens civilian control of the military while providing for a more effective national defense at a reduced cost, then it will likely gain the support of Congress, followed by swift adjustments in legislative authority. Also, DoD leaders must clearly make the case for change internally, championing the benefits of reform. The natural tendency of the rank and file will always be to resist change.

The implementation plan should begin with a small and easy change that is likely to be successful. This will allow for momentum to build in favor of seeing the process through to the end. Following that initial success, the remaining plan should be implemented in an incremental fashion. This will allow for changes of course in case unexpected negative consequences are encountered. For example, the Services could begin by standardizing one aspect of the personnel system within the current Service systems. They could then move toward the minimum level of standardization that would allow merging of all databases into one system without actually consolidating personnel commands. This would provide a cost benefit and a Service benefit to all Service members who should then be able to obtain more personnel services from any military base.

## Areas for Further Research

There are at least two areas worthy of further research. First, as discussed, the specific reform proposals in this thesis need to be expanded greatly by a team of experts from all Services. This team should have the leeway to make alternate suggestions that lead to the same desired end state of enabling globally integrated operations and increasing effectiveness and efficiency. The team should also be able to provide measurable gains for each of the proposals, in terms of manpower reduction, dollars saved, and interoperability improvement. The second area for further research is to expand this effort beyond the four DoD military Services in the active component. There are likely similar opportunities for reform across the reserve component, in the defense agencies, in U.S. Special Operations Command, and in the Coast Guard.

# CHAPTER 6: CONCLUSION

In conclusion, this thesis posits that, **"Common aspects of personnel policy, combat service support, and aviation must be unified across the military Services. Unification of these functions will improve military efficiency and effectiveness and enable the CJCS' concepts of globally integrated operations and mission command."** The three functions listed in the thesis are common to all the military Services. As currently organized, the Department of Defense conducts these activities in four Service pipelines characterized by unnecessary and inefficient competing redundancy. The result is excessive and growing staffs, low tooth-to-tail ratios, and overall waste. Additionally, competing redundancy creates significant barriers to interoperability and joint understanding. The Armed Forces would be better served if these functions were unified, standardized, and taken off the Services' plate so that they can focus on the core war-fighting skills that truly distinguish them as individual Services—their "Hedgehog Concepts."

The current DoD organization is the result of over 220 years of national history, with most of that period seeing an Army operating under the Department of War in near complete isolation from the Navy and Marine Corps operating under the Department of the Navy. Movement toward unification occurred as a result of three factors that developed over the period from 1900 to 1947: the acquisition of U.S. interests overseas, the growth in the size of the peacetime military, and the opening of the air and other connective domains to military operations. Following World War II, Congress formalized a more unified organization of the Armed Forces via the National Security

Act (NSA) of 1947, largely modeled after President Franklin Roosevelt's temporary war-powers adjustments. However, this organizational structure was a compromise between strident advocates for more or less unification, and it is not clear that it was the most effective organization for its time. Moreover, the structure created in 1947 has only seen three relatively significant adjustments over the years, and none of them have changed the legal distribution of functions among the Services. Given this highly stable organization in what has been a very dynamic security environment, and given the proof of wasteful competing redundancy, it is clearly time to change the structure of the Armed Forces.

Specifically, the DoD should gain permission from Congress to: 1) abolish the military Departments (but not the Services); 2) unify military personnel policy under a single defense agency or unified command; 3) unify accession activities; 4) unify combat service support policy under an executive agency structure; and 5) unify common, non-mission related aviation functions. Implementation of these proposals will lead to a more efficient and effective military organization. Efficiency will be improved by eliminating wasteful redundancy in non-combat functions. Improving standardization and commonality in personnel, combat service support, and aviation will make the Armed Forces much more interoperable at lower echelons and result in more opportunities for building jointness deeper and sooner. These concepts underlie the Chairman of the Joint Chiefs of Staff's visions of mission command, cross-domain synergy, and globally integrated operations. Implementation of these proposals thus will enable the Joint Force of 2020.

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# VITA

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## APPENDIX: TABULATED ACTIVE DUTY PERSONNEL DATA

The table below contains the data used to construct the chart on active duty personnel numbers in Chapter 3. While the primary purpose of the chart is to visually illustrate the dramatic and unique increase in the size of the standing military forces following WWII, the tabulated data provides further insights, particularly where small numbers in the overall force or in one Service are obscured by much larger numbers. These numbers are not readily available from the Department of Defense (DoD) for years earlier than approximately 1950. DoD publishes recent data on its website, with more detailed data available for more recent years. That said, the source used for the majority of years from 1789 to 1995 is a table in Volume 5 of *Historical Statistics of the United States: Earliest Times to the Present, Millenial Edition.* The author states that DoD is the primary source of his data, so he may have contacted the appropriate DoD office directly to get this information. Thus, the ultimate source for all the information is DoD. Where data from the published volume differed from recent data on the DoD website, the direct DoD data was used (there were some minor differences, perhaps due to DoD updating its data after the *Historical Statistics* work was published). It is acknowledged that U.S. military forces existed before 1789, notably in the Continental Army, Continental Navy, and Continental Marines which fought in the Revolutionary War. Nonetheless, the official DoD data in the table below, beginning with the enactment of the U.S. Constitution in 1789, is sufficient for describing the relative size of the peacetime military over the course of the nation's existence, and thus for explaining the timing and causes for organizational change.

## Table 1. Active Duty Military Personnel, 1789 - 2012[1]

| Year | Total | Army | Navy | Marine Corps | Air Force |
|---|---|---|---|---|---|
| 1789 | 718 | 718 | | | |
| 1790 | | | | | |
| 1791 | | | | | |
| 1792 | | | | | |
| 1793 | | | | | |
| 1794 | 5,669 | 3,813 | 1,856 | | |
| 1795 | 5,296 | 3,440 | 1,856 | | |
| 1796 | 1,856 | | 1,856 | | |
| 1797 | 1,856 | | 1,856 | | |
| 1798 | 1,939 | | 1,856 | 83 | |
| 1799 | 2,568 | | 2,200 | 368 | |
| 1800 | 5,925 | | 5,400 | 525 | |
| 1801 | 7,108 | 4,051 | 2,700 | 357 | |
| 1802 | 5,432 | 2,873 | 2,200 | 359 | |
| 1803 | 4,528 | 2,486 | 1,700 | 342 | |
| 1804 | 5,323 | 2,734 | 2,200 | 389 | |
| 1805 | 6,498 | 2,729 | 3,191 | 578 | |
| 1806 | 4,076 | 2,653 | 1,105 | 318 | |
| 1807 | 5,323 | 2,775 | 2,145 | 403 | |
| 1808 | 8,200 | 5,712 | 1,616 | 872 | |
| 1809 | 12,375 | 6,977 | 4,875 | 523 | |
| 1810 | 11,554 | 5,956 | 5,149 | 449 | |
| 1811 | 11,528 | 5,608 | 5,364 | 556 | |
| 1812 | 12,631 | 6,686 | 5,452 | 493 | |
| 1813 | 25,152 | 19,036 | 5,525 | 591 | |
| 1814 | 46,858 | 38,186 | 8,024 | 648 | |
| 1815 | 40,885 | 33,424 | 6,773 | 688 | |
| 1816 | 16,743 | 10,231 | 6,040 | 472 | |
| 1817 | 14,606 | 8,446 | 5,494 | 666 | |
| 1818 | 14,260 | 8,155 | 5,545 | 560 | |
| 1819 | 13,259 | 8,506 | 4,068 | 685 | |
| 1820 | 15,113 | 10,554 | 3,988 | 571 | |
| 1821 | 10,587 | 5,773 | 3,935 | 879 | |
| 1822 | 9,863 | 5,358 | 3,774 | 731 | |
| 1823 | 10,871 | 6,117 | 4,053 | 701 | |
| 1824 | 11,008 | 5,973 | 4,095 | 940 | |

[1] Table created by author from data in: Scott Sigmund Garner, "Table Ed26-47: Military Personnel on active duty, by branch of service and sex: 1789 – 1995," in *Governance and International Relations*, ed. Susan B. Carter et al., vol. 5 of *Historical Statistics of the United States: Earliest Times to the Present, Millenial Edition*, ed. Richard Sutch and Susan B. Carter (Cambridge: Cambridge University Press, 2006) and personnel data published by the Department of Defense at http://siadapp.dmdc.osd.mil/personnel/military/miltop.htm, accessed 6 Jan 2013.

| Year | Total | Army | Navy | Marine Corps | Air Force |
|---|---|---|---|---|---|
| 1825 | 11,089 | 5,903 | 4,405 | 781 | |
| 1826 | 11,586 | 5,989 | 4,762 | 835 | |
| 1827 | 11,627 | 5,885 | 4,796 | 946 | |
| 1828 | 11,431 | 5,702 | 4,797 | 932 | |
| 1829 | 12,096 | 6,332 | 4,869 | 895 | |
| 1830 | 11,942 | 6,122 | 4,929 | 891 | |
| 1831 | 11,173 | 6,055 | 4,303 | 815 | |
| 1832 | 12,478 | 6,268 | 5,312 | 898 | |
| 1833 | 12,895 | 6,579 | 5,420 | 896 | |
| 1834 | 13,396 | 7,030 | 5,451 | 915 | |
| 1835 | 14,311 | 7,337 | 5,557 | 1,417 | |
| 1836 | 16,874 | 9,945 | 5,588 | 1,341 | |
| 1837 | 22,462 | 12,449 | 8,452 | 1,561 | |
| 1838 | 17,948 | 9,197 | 7,656 | 1,095 | |
| 1839 | 19,317 | 10,691 | 7,676 | 950 | |
| 1840 | 21,616 | 12,330 | 8,017 | 1,269 | |
| 1841 | 20,793 | 11,319 | 8,274 | 1,200 | |
| 1842 | 22,851 | 10,780 | 10,782 | 1,289 | |
| 1843 | 20,741 | 9,102 | 10,555 | 1,084 | |
| 1844 | 20,919 | 8,730 | 11,103 | 1,086 | |
| 1845 | 20,726 | 8,509 | 11,189 | 1,028 | |
| 1846 | 39,165 | 27,867 | 10,131 | 1,167 | |
| 1847 | 57,761 | 44,736 | 11,193 | 1,832 | |
| 1848 | 60,308 | 47,319 | 11,238 | 1,751 | |
| 1849 | 23,165 | 10,744 | 11,345 | 1,076 | |
| 1850 | 20,824 | 10,929 | 8,794 | 1,101 | |
| 1851 | 20,699 | 10,714 | 8,792 | 1,193 | |
| 1852 | 21,349 | 11,376 | 8,805 | 1,168 | |
| 1853 | 20,667 | 10,572 | 8,841 | 1,254 | |
| 1854 | 21,134 | 10,894 | 8,879 | 1,361 | |
| 1855 | 26,402 | 15,911 | 8,887 | 1,604 | |
| 1856 | 25,867 | 15,715 | 8,681 | 1,471 | |
| 1857 | 27,345 | 15,918 | 9,676 | 1,751 | |
| 1858 | 29,014 | 17,678 | 9,729 | 1,607 | |
| 1859 | 28,978 | 17,243 | 9,884 | 1,851 | |
| 1860 | 27,958 | 16,215 | 9,942 | 1,801 | |
| 1861 | 217,112 | 186,845 | 27,881 | 2,386 | |
| 1862 | 673,124 | 637,264 | 33,454 | 2,406 | |
| 1863 | 960,061 | 918,354 | 38,707 | 3,000 | |
| 1864 | 1,031,724 | 970,905 | 57,680 | 3,139 | |
| 1865 | 1,062,848 | 1,000,692 | 58,296 | 3,860 | |
| 1866 | 76,749 | 57,072 | 16,340 | 3,337 | |
| 1867 | 74,786 | 57,194 | 14,081 | 3,511 | |

| Year | Total | Army | Navy | Marine Corps | Air Force |
|---|---|---|---|---|---|
| 1868 | 66,412 | 51,066 | 12,268 | 3,078 | |
| 1869 | 51,632 | 36,953 | 12,295 | 2,384 | |
| 1870 | 50,348 | 37,240 | 10,562 | 2,546 | |
| 1871 | 42,238 | 29,115 | 10,610 | 2,513 | |
| 1872 | 42,205 | 28,322 | 11,680 | 2,203 | |
| 1873 | 43,228 | 28,812 | 11,654 | 2,762 | |
| 1874 | 43,609 | 28,640 | 12,700 | 2,269 | |
| 1875 | 38,105 | 25,513 | 10,479 | 2,113 | |
| 1876 | 40,591 | 28,565 | 10,046 | 1,980 | |
| 1877 | 34,094 | 24,140 | 8,057 | 1,897 | |
| 1878 | 36,444 | 26,023 | 8,087 | 2,334 | |
| 1879 | 38,022 | 26,601 | 9,453 | 1,968 | |
| 1880 | 37,894 | 26,594 | 9,361 | 1,939 | |
| 1881 | 37,845 | 25,842 | 10,101 | 1,902 | |
| 1882 | 37,850 | 25,811 | 10,170 | 1,869 | |
| 1883 | 37,278 | 25,652 | 9,842 | 1,784 | |
| 1884 | 39,400 | 26,666 | 10,846 | 1,888 | |
| 1885 | 39,098 | 27,157 | 10,057 | 1,884 | |
| 1886 | 38,636 | 26,727 | 9,909 | 2,000 | |
| 1887 | 38,763 | 26,719 | 10,113 | 1,931 | |
| 1888 | 39,035 | 27,019 | 10,115 | 1,901 | |
| 1889 | 39,452 | 27,759 | 9,921 | 1,772 | |
| 1890 | 38,666 | 27,373 | 9,246 | 2,047 | |
| 1891 | 37,868 | 26,463 | 9,247 | 2,158 | |
| 1892 | 38,677 | 27,190 | 9,448 | 2,039 | |
| 1893 | 39,492 | 27,830 | 9,529 | 2,133 | |
| 1894 | 42,101 | 28,265 | 11,460 | 2,376 | |
| 1895 | 42,226 | 27,495 | 11,846 | 2,885 | |
| 1896 | 41,680 | 27,375 | 12,088 | 2,217 | |
| 1897 | 43,656 | 27,865 | 11,985 | 3,806 | |
| 1898 | 235,785 | 209,714 | 22,492 | 3,579 | |
| 1899 | 100,166 | 80,670 | 16,354 | 3,142 | |
| 1900 | 125,923 | 101,713 | 18,796 | 5,414 | |
| 1901 | 112,322 | 85,557 | 20,900 | 5,865 | |
| 1902 | 111,145 | 81,275 | 23,648 | 6,222 | |
| 1903 | 106,043 | 69,595 | 29,790 | 6,658 | |
| 1904 | 110,129 | 70,387 | 32,158 | 7,584 | |
| 1905 | 108,301 | 67,526 | 33,764 | 7,011 | |
| 1906 | 112,216 | 68,945 | 35,053 | 8,218 | |
| 1907 | 108,375 | 64,170 | 36,119 | 8,086 | |
| 1908 | 128,500 | 76,942 | 42,322 | 9,236 | |
| 1909 | 142,200 | 84,971 | 47,533 | 9,696 | |
| 1910 | 139,344 | 81,251 | 48,533 | 9,560 | |

| Year | Total | Army | Navy | Marine Corps | Air Force |
|---|---|---|---|---|---|
| 1911 | 144,846 | 84,006 | 51,230 | 9,610 | |
| 1912 | 153,174 | 92,121 | 51,357 | 9,696 | |
| 1913 | 154,914 | 92,756 | 52,202 | 9,956 | |
| 1914 | 165,919 | 98,544 | 56,989 | 10,386 | |
| 1915 | 174,112 | 106,754 | 57,072 | 10,286 | |
| 1916 | 179,376 | 108,399 | 60,376 | 10,601 | |
| 1917 | 643,833 | 421,467 | 194,617 | 27,749 | |
| 1918 | 2,978,899 | 2,395,742 | 530,338 | 52,819 | |
| 1919 | 1,172,602 | 851,624 | 272,144 | 48,834 | |
| 1920 | 343,302 | 204,292 | 121,845 | 17,165 | |
| 1921 | 386,542 | 230,725 | 132,827 | 22,990 | |
| 1922 | 270,207 | 148,763 | 100,211 | 21,233 | |
| 1923 | 247,011 | 133,243 | 94,094 | 19,674 | |
| 1924 | 261,189 | 142,673 | 98,184 | 20,332 | |
| 1925 | 251,756 | 137,048 | 95,230 | 19,478 | |
| 1926 | 247,396 | 134,938 | 93,304 | 19,154 | |
| 1927 | 248,943 | 134,829 | 94,916 | 19,198 | |
| 1928 | 250,907 | 136,084 | 95,803 | 19,020 | |
| 1929 | 255,031 | 139,118 | 97,117 | 18,796 | |
| 1930 | 255,648 | 139,378 | 96,890 | 19,380 | |
| 1931 | 252,605 | 140,516 | 93,307 | 18,782 | |
| 1932 | 244,902 | 134,957 | 93,384 | 16,561 | |
| 1933 | 243,845 | 136,547 | 91,230 | 16,068 | |
| 1934 | 247,137 | 138,464 | 92,312 | 16,361 | |
| 1935 | 251,799 | 139,486 | 95,053 | 17,260 | |
| 1936 | 291,356 | 167,816 | 106,292 | 17,248 | |
| 1937 | 311,808 | 179,968 | 113,617 | 18,223 | |
| 1938 | 322,932 | 185,488 | 119,088 | 18,356 | |
| 1939 | 334,473 | 189,839 | 125,202 | 19,432 | |
| 1940 | 458,365 | 269,023 | 160,997 | 28,345 | |
| 1941 | 1,801,101 | 1,462,315 | 284,427 | 54,359 | |
| 1942 | 3,858,791 | 3,075,608 | 640,570 | 142,613 | |
| 1943 | 9,044,745 | 6,994,472 | 1,741,750 | 308,523 | |
| 1944 | 11,451,719 | 7,994,750 | 2,981,365 | 475,604 | |
| 1945 | 12,055,884 | 8,266,373 | 3,319,586 | 469,925 | |
| 1946 | 3,024,893 | 1,435,496 | 978,203 | 155,679 | 455,515 |
| 1947 | 1,582,111 | 685,458 | 497,773 | 93,053 | 305,827 |
| 1948 | 1,444,283 | 554,030 | 417,535 | 84,988 | 387,730 |
| 1949 | 1,613,686 | 660,473 | 447,901 | 85,965 | 419,347 |
| 1950 | 1,459,462 | 593,167 | 380,739 | 74,279 | 411,277 |
| 1951 | 3,249,371 | 1,531,774 | 736,596 | 192,620 | 788,381 |
| 1952 | 3,635,912 | 1,596,419 | 824,265 | 231,967 | 983,261 |
| 1953 | 3,555,067 | 1,533,815 | 794,440 | 249,219 | 977,593 |

| Year | Total | Army | Navy | Marine Corps | Air Force |
|---|---|---|---|---|---|
| 1954 | 3,302,104 | 1,404,598 | 725,720 | 223,868 | 947,918 |
| 1955 | 2,935,107 | 1,109,296 | 660,695 | 205,170 | 959,946 |
| 1956 | 2,806,441 | 1,025,778 | 669,925 | 200,780 | 909,958 |
| 1957 | 2,794,761 | 997,994 | 676,071 | 200,861 | 919,835 |
| 1958 | 2,599,518 | 898,925 | 639,942 | 189,495 | 871,156 |
| 1959 | 2,503,631 | 861,964 | 625,661 | 175,571 | 840,435 |
| 1960 | 2,475,438 | 873,078 | 616,987 | 170,621 | 814,752 |
| 1961 | 2,482,905 | 858,622 | 626,223 | 176,909 | 821,151 |
| 1962 | 2,805,603 | 1,066,404 | 664,212 | 190,962 | 884,025 |
| 1963 | 2,698,927 | 975,916 | 663,897 | 189,683 | 869,431 |
| 1964 | 2,685,782 | 973,238 | 665,969 | 189,777 | 856,798 |
| 1965 | 2,653,926 | 969,066 | 669,985 | 190,213 | 824,662 |
| 1966 | 3,092,175 | 1,199,784 | 743,322 | 261,716 | 887,353 |
| 1967 | 3,375,485 | 1,442,498 | 750,224 | 285,269 | 897,494 |
| 1968 | 3,546,071 | 1,570,343 | 763,626 | 307,252 | 904,850 |
| 1969 | 3,457,522 | 1,512,169 | 773,779 | 309,221 | 862,353 |
| 1970 | 3,064,760 | 1,322,548 | 691,126 | 259,737 | 791,349 |
| 1971 | 2,713,044 | 1,123,810 | 621,565 | 212,369 | 755,300 |
| 1972 | 2,321,959 | 810,960 | 586,923 | 198,238 | 725,838 |
| 1973 | 2,251,936 | 800,973 | 563,683 | 196,098 | 691,182 |
| 1974 | 2,162,005 | 783,330 | 545,903 | 188,802 | 643,970 |
| 1975 | 2,128,120 | 784,333 | 535,085 | 195,951 | 612,751 |
| 1976 | 2,081,910 | 779,417 | 524,678 | 192,399 | 585,416 |
| 1977 | 2,074,543 | 782,246 | 529,895 | 191,707 | 570,695 |
| 1978 | 2,061,708 | 771,624 | 529,557 | 190,815 | 569,712 |
| 1979 | 2,026,892 | 758,852 | 523,335 | 185,250 | 559,455 |
| 1980 | 2,050,627 | 777,036 | 527,153 | 188,469 | 557,969 |
| 1981 | 2,082,560 | 781,419 | 540,219 | 190,620 | 570,302 |
| 1982 | 2,108,612 | 780,391 | 552,996 | 192,380 | 582,845 |
| 1983 | 2,123,349 | 779,643 | 557,573 | 194,089 | 592,044 |
| 1984 | 2,138,157 | 780,180 | 564,638 | 196,214 | 597,125 |
| 1985 | 2,151,032 | 780,787 | 570,705 | 198,025 | 601,515 |
| 1986 | 2,169,112 | 780,980 | 581,119 | 198,814 | 608,199 |
| 1987 | 2,174,217 | 780,815 | 586,842 | 199,525 | 607,035 |
| 1988 | 2,138,213 | 771,847 | 592,570 | 197,350 | 576,446 |
| 1989 | 2,130,229 | 769,741 | 592,652 | 196,956 | 570,880 |
| 1990 | 2,043,705 | 732,403 | 579,417 | 196,652 | 535,233 |
| 1991 | 1,985,555 | 710,821 | 570,262 | 194,040 | 510,432 |
| 1992 | 1,807,177 | 610,450 | 541,883 | 184,529 | 470,315 |
| 1993 | 1,705,103 | 572,423 | 509,950 | 178,379 | 444,351 |
| 1994 | 1,610,490 | 541,343 | 468,662 | 174,158 | 426,327 |
| 1995 | 1,518,224 | 508,559 | 434,617 | 174,639 | 400,409 |
| 1996 | 1,471,722 | 491,103 | 416,735 | 174,883 | 389,001 |

| Year | Total | Army | Navy | Marine Corps | Air Force |
|---|---|---|---|---|---|
| 1997 | 1,438,562 | 491,707 | 395,564 | 173,906 | 377,385 |
| 1998 | 1,406,830 | 483,880 | 382,338 | 173,142 | 367,470 |
| 1999 | 1,385,703 | 479,426 | 373,046 | 172,641 | 360,590 |
| 2000 | 1,384,338 | 482,170 | 373,193 | 173,321 | 355,654 |
| 2001 | 1,385,116 | 480,801 | 377,810 | 172,934 | 353,571 |
| 2002 | 1,413,577 | 486,542 | 385,051 | 173,733 | 368,251 |
| 2003 | 1,434,377 | 499,301 | 382,235 | 177,779 | 375,062 |
| 2004 | 1,426,836 | 499,543 | 373,197 | 177,480 | 376,616 |
| 2005 | 1,389,394 | 492,728 | 362,941 | 180,029 | 353,696 |
| 2006 | 1,384,968 | 505,402 | 350,197 | 180,416 | 348,953 |
| 2007 | 1,379,551 | 522,017 | 337,547 | 186,492 | 333,495 |
| 2008 | 1,401,757 | 543,645 | 332,228 | 198,505 | 327,379 |
| 2009 | 1,418,542 | 553,044 | 329,304 | 202,786 | 333,408 |
| 2010 | 1,430,985 | 566,045 | 328,303 | 202,441 | 334,196 |
| 2011 | 1,425,113 | 565,463 | 325,123 | 201,157 | 333,370 |
| 2012 | 1,388,028 | 546,057 | 314,339 | 198,820 | 328,812 |